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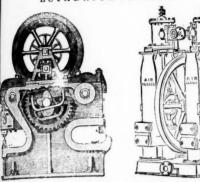
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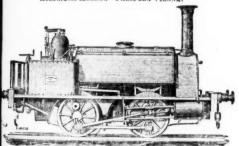
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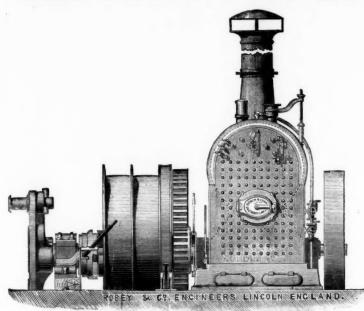
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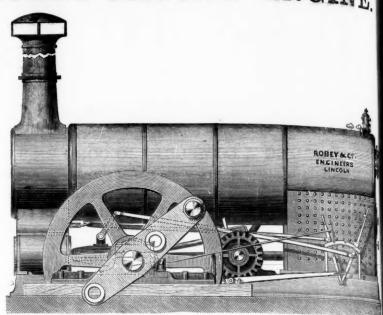
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MANUFACTURE OF PEAT STEEL.

The business of carbonising peat is day by day increasing, the reguling materia furnishing an excellent fuel suitable for use as a distitute for charcoal, to which it is great y superior with regard substitute for charcoal, to which it is great y superior with regard to cheapless and calorific power. An additional application of it only proposed by Count G. F. de Douher, of Paris, who suggests is now proposed by Count G. F. de Douher, of Paris, who suggests is now proposed for the utilising of the carbonisation of peat, series of processes for the utilising of the carbonisation of peat, and for the purpose of cementing or converting into steel at a low as for the purpose of cementing or converting into steel at a low as step by an entire y novel method of cementation. He remarks a steep of the purpose of manufacturers who devote themselves to the carbonisation are so anxious to obtain rapidly and easily this is stably an entire y novel method of cementation. He remarks is stably an entire y novel method of cementation. He remarks it is carbonisation are so anxious to obtain rapidly and easily this disconsistion of the peat products with which the distillation or carbonisation of the peat products with which the distillation or carbonisation of the peat products with which the distillation or carbonisation of the peat products with them abundantly in closed vessels, they prefer to abanyould furnish them abundantly in closed vessels, they prefer to abanyould furnish them abundantly in closed vessels, they prefer to abanyould furnish them abundantly for sulphuric acid. But with regard to those with assitable quantity of sulphuric acid. But with regard to those with assitable quantity of sulphuric acid. But with regard to those with assitable quantity of sulphuric acid. But with regard to those with a suitable quantity of sulphuric acid. But with regard to those with a suitable quantity of sulphuric acid. But with regard to those with a sulphuric acid. But with regard to those them in the atmosphere in factures neglect them, preferring to lose them in the atmosphere in factures neglect them, preferring to lose them in the atmosphere in factures neglect them, preferring to lose them in the atmosphere in factures neglect them, preferring to lose them in the atmosphere in factures as afficiently open to permit the ready escape of the peaty spours, and bring about the carbonisation by the simple encoment it has been hitherto considered of but sight utility to collect the abproducts of the carbonisation of the peat, it, however, becomes desiable not to lose them if they can be made to serve in the state of vapour and gas superheated to the degree usually allowed by this erbonisation for new and important applications. It has long been known that if soft iron heated to a bright-red colour is immersed in a so ution of ferrocyanide of potassium it immediately acquires the hardness of steel. The same phenomenon is become in ass

colour is immersed in a so ution of terrocyanide of potassium it immediately acquires the hardness of steel. The same phenomenon is
observed in passing the crystals of this salt over the surface of whitehotiron, neverthe eas this "stee ification," for it is one, on'y exists
at the surface of the meta', but it is none the less true that it will
tansform the iron into veritable steel if it is caused to enter u timate'y into its mo'ecular constitution. A steel ification of the same
kind is obtained by submitting iron at a white heat to a current of

kind is obtained by submitting from at a write next to a current of carbonated hydrogen and ammonia, which, moreover, but for the hydrogen wou d reproduce the two elements of cyanogen. It is not necessary to describe the divers processes of teel-lification, either by the decarbonisation of cast-iron or the numerous methods tried late y in the laboratory or factory. It is sufficient to understand that in the existing state of the manufacture of steel there is in the diverse definitions of this product such confusion that it may not be a sufficient to the manufacture of steel there is in the diverse definitions of this product such confusion that it may in the diverse definitions of this product such confusion that it may be sideach manifacturer possesses his own particular cement, which is a ways superior to that of his neighbour, and that one sing e truth is apparent in this chaos—that teel is only soft iron hardened, for which hardening there are many processes, a'll of which tend to cause the absorption by the iron of a tenth part of its weight of carbon, a harlening, however, only manifest in the tempering which then renders the metal proof against the action of a file. Be that as it may, it is create in that vapour of peat contains in abundance at the moment is certain that vapour of peat contains in abundance at the moment its distillation in closed vessels, or of its carbonisation in vessels here or less carboni-ed hydrogen, ammonial gas, and peculiar vola-ile and lubricating principes es-entially adapted to serve as a chicle for the assimilation by the iron of the desired quantity of adapted. If he ubmits to the action of these divers agents and to a superature relatively low ordinary soft iron in bars of variousizes, cobtains in a few hours a stee lification constant and sufficient to suffer this iron into commercial, teel sform this iron into commercial stee!

transform this iron into commer ial stee?. The novelty of this process does not, therefore, con-ist as will be sen in the cementation of the iron by the action of the gas and chemical agents specified; neither wou d there be any nove ty if the cementation of the iron followed the usual process. This process comprises a ca'cination in c'osed vesse's in refractory boxes of bars of iron ming ed with charcoal hermetically sealed, and subjected during a long and sustained action for a number of days in special furnaces heated to a very high temperature, an operation naturally long, coty, and not in any respect resembling this process. In the 'atter the cementation of the iron takes p'ace simply in the middle of peat, carbonising it e' fin ordinary furnaces for producing its special charcoal. All the ordinary furnaces employed in the carbonisation of peat are, therefore, good, and sufficient for this transformation of iron into steel, such as muffles arranged contiguous to each other, and in stages such as are employed in the manufacture of all kinds of ag-

tages such as are employed in the manufacture of all kinds of ag-domerations, especially the prepared charcoal known as charbon de-pars; also open furnaces, which may be closed when the carboni a-tion appears sufficient, or those that close themselves gradually, or Paris; also open furnaces, which may be closed when the carboni above a sufficient, or those that close themselves gradually, or effect the carbonisation of the peat by a continuous movement, and all furnaces employed in peat works where this carbonisation may be effected by placing iron bars in the peat at the moment of their carbonisation, thus producing the proper degree of steeline, provided the operation is prolonged or renewed more or less according to the hickness of the bars to be steeled by fresh layers of peat, continuing by their carbonisation the steeling of the same iron. The iron cemented in this manner furnishes an excellent steel suitable for all uses, and a peculiar feature of this invention is the obtaining of this result at a low temperature by the processes described. Another feature is the cementation of iron in closed ve sels by the dust of the ordinary agalomeration of charbon de Paris, or of green peat with its addition in variable proportions, according to the rapidity of the effect to be obtained, of yellow or red prussiate of potash in powder (yano-ferride and cyano-ferrite of potassium). In this case the cementation may be effected in closed or tight yessels or boxes, such as accordinary yused for the cementation of iron; this process, known only in laboratories, not having been yet practised commercially. These directions are equally applicable to the steeling of iron by the carbonisation of agalomerations by means of tur or pitch. It is easy, in fact, to understand that instead of peat he may employ these effects of steelifying nearly equivalent. In applying the method above indicated, it is apparent that among the furnaces for carbonising that used in the manufacture of artificial charcoal, called "Paris Charcoal," afford certain advantages. In fact, when the moulded

above indicated, it is apparent that among the furnaces for carbon-ising that used in the manufacture of artificial charcoal, called "Paris Clarcoal," afford-certain advantages. In fact, when the moulded charcoal, till wet with its tar or pitch, is introduced into the muffles emignous to and arranged one above the other, as in these furnace-, it is easy to place therein barsof soft iron of the length of the setting boxs in the middle of the bricks or cylinders of mou'ded charcoal, so that with a single operation he may have when the muffle is charcoal, aquantity of iron to steelify proportionate to that of the charcoal a duantity of iron to steelify proportionate to that of the charcoll to harden and carbonise by the firing of the muffle, which eliminates the tar in reducing the same to the state of combustion by the hardening of the mass. When afterwarde the operation is sini-hed, and the winds of the whole of the charge is deposited in the extinguishing pans, iron lars follow the movement, and remain till cool in the extinguishing pans or presence of the incandescent charcoal, aguishing the late of the incandescent chargos. extinguishing themselves gradually, and permitting the iron to be penetrated very perceptibly with the azents, whereby it is brought to the condition of steel. If on the contrary, it is desired to effect the capacity. to the condition of steel. It is the same furnace, bars of iron may be blaced nearly the entire length of the muffle, taking care to first cover its h-arth with a layer of green peat. The iron in this state should be placed with the bars side by side flatwise, or better stilled zewise if the latter than the side by side flatwise are that at the side the bars of the bars side by side flatwise, or better still edgewise the bars on be held in this position, taking care that at the side the door from which they s' ould be taken the end of the bars protocer the pert sufficiently to allow them to be first raised with the formace.

The furnace is then.

The furnace is then dis harged, and the hearth quickly re-charged, lacing in the same manner the bars still red in the middle of the flesh pet; and in this manner he obtains by numerous successive operations, according to the thickness of bars, a very good steel, which if it is immediately hammered and refin-dequals in value the steels of Germany with regard to its facility in forging and welding; while in its rough condition, as it comes from the furnace, it may be

emp oyed dire tly for all the uses of steel, as for files, blacksmiths' work, outlery, and the like. The arrangement of furnaces with emp oyed directly for all the uses of steel, as for files, blacksmiths' work, cutlery, and the like. The arrangement of furnaces with closed neck cylinders or closed vesse's, for the purpose of collecting the sub-products of peat, would probably be still better it it were possible to withdraw therefrom the bers, and to renew the chr. e of peat as e sily as in the process above described. Nevertheless, though this arrangement may be an excellent one, perhaps the first is preferable. He emplyes an appearatus for placing the bars, and keeping them edgewise and side by side in such a manner that they will not be recersed during their conversion into steel. This apparatus is composed of two strong iron bars of a length equal to the width of the muffle. These bars have notches sufficiently wide and deep to held edgewise their on placed therein for conversion into steel. One of these large bars is placed at the entrance of the furnace, and serves of these large bars is placed at the entrance of the furnace, and serves to support the iron. The other is arranged at two-thirds the length of the muffle to su tain rigidly by means of corresponding not hes the iron bars, which are thus placed longitudinally edgewise, and side by side. Thus constructed, the said apparatus forms a species of grate with moveable bars, and which is placed immediately over the hearth of the furnace.

The apparatus is left in the muffle during the time necessary for

of grate with moverable bars, and which is placed immediately over the hearth of the furnace.

The apparatus is left in the muffle during the time necessary for the steeling to take place, care being taken not to disturb it in deposition to the steeling to take place, care being taken not to disturb it in deposition to the steeling the leaf. But it is sometimes advantage ous to turn the bars after this deposit, so that each part to be steeled may be in turn cover d by the entire thickness of the peat which forms the new charge of the muffle. The steel resulting from the employment of this apparatus is said to be more equal in its constitution than other steel. If it be desired to steel the scrap and ends of iron, which in the trade are sometimes termed ribbions, they may be thrown by shovefuls into the muffle in the middle of the charge, and then emptied not the extinguishing pan till the mass is cool, then at the moment of the sixting of the peat their on in fragments is very easily separated therefore, in to be submitted to such calcination as is needs sort to convert it into steel by means of fresh charges of peat to be carbonised in the same muffles. Of course, these tragments of iron has converted into steel cannot be utilised except as cast at ell, nevertheless, when transformed in this manner they are worth much more than their primitive value. The coal at the moment of its car bonis tion—that is to say, when it becomes coke—whether in gas retorts as used for the purposes of lighting towns, or in specially constructed furnaces (without regard to retaining the gas) for producing the coke direct is as suitable as peat, and the agglomerations for conveniently producing steel from iron.

No special apparatus need be used; it is sufficient to place either in gas retorts, where they are charged with coal, or in coke furnaces soft iron either rolled, laminated in bars, or in pieces, in order to transform it into steel either after one calcination or several calcinations of coke, according to the thickness of th The apparatus is left in the muffle during the time necessary for

tions that the iron would become changed by the sulphurous matters contained in the coal, but experiments have shown that the greater part of the sulphur remains attached to the coke during the carboniation of the coal, and that in all cases there is not a sufficiently free liberation of sulphurous gas to alter the steel-producing action of the various hydro-carburets and the ammoniacal principles contained in coal in such abundance.

in coal in such abundance.

This invention also comprises the application of the carbonisation of wood, branches, sticks or blocks, either in ovens or furnaces, in closed vessels or in heaps in forests, to the production of steel from iron, the gaseous principles in presence with carbon at the commencement of carbonisation being favourable to the production of steel from iron. The steel-producing power from wood, however, is variable, and that in order to effect it quickly it is preferable to use resinous woods, such as are obtained from our coniferous trees, pines, firs, lar-b-s, cedars, junipers, and the like, and for other countries mountain broom and furze, ut particularly the stems and fallen leaves of those plants containing heavy and essential oils, but always carbonised in vessels or apparatus more or le-s closed.

ST. GOTHARD TUNNEL.

Having been furnished by a friend in Switzer'and with a copy of the Transactions of the Scientific Society of Audermatt, I send some the Transactions of the Scientific Society of Audermatt, I send some extracts from the French and German papers in them relative to the tunnel through the Alps of 9 miles in length, with a width of 8 yards 2 ft. c ear of the walling, and 6 yards 2 ft. in height. There is a heading of about 7 square yards, of which the roof is about 7 yards above the future railway; 25 yards behind the end there is a widening, and 300 yards nearer the entrance a lower channel is cut. A se ection was made from twenty different boring machines, each having some special advantage, it being essential that a niner should quickly learn to use them advantageously. McKean's, with a pressure of 4 to 5 atmospheres, advanced regularly in hard granite 10 to 12 metres (4 to 5 inches) per minute. This machine lighter

should quick'y learn to use them advantageous'y. McKean's, with a pressure of 4 to 5 atmospheres, advanced regu'ar'y in hard granite '10 to '12 metres (4 to 5 inches) per minute. This machine lighter and shorter than Sommeiller's, worked for 18 months, principal y in en'arging the tunnel. M. Ferroux simp ified Sommeil er's apparatus, and advancing the ey inder as the ho'e deepened by a cushion of air, lessened the jar of the recoi ing tool. But the length and weight of the apparatus, and the extra supply of air needed, diminished the advantage of the more rapid progress and greater facility of working. In the summer of 1875 Mr. Turretini's borer having worked successfully in concurrence with three others (but of less weight, length, and bulk), it was decided to adopt it. When the compressed air is admitted the cylinder moves on, and when the chisel strikes the rock advances with it. The piston is composed of two parts, a little separated before the b'ow. The rotation of the piston and borer is ingeniously contrived; the cost of repairs is small. The holes averaging 42 in the headway are about 33 ft. deep. Dynamite is used, and 14 and 20 holes are exploded together.

In the year ending Sept. 3, 1875, the tunnel advanced 1330 yards on the Swiss side and 1314 yards on the Italian. The progress was nearly 30 per cent. faster in the last than in the first quarter of the year, advancing at the rate of about 1 fathom a-day: 1000 cubic metres of air (at a pressure of 7 atmospheres) every hour drive the borers: 400 workmen are employed in each tunnel. It is calculated that each lamp needs as much fresh air as a man, and that more than 5000 cubic metres of fresh air are required every hour: 300 ki ogrammes of dynamite are consumed on each side in 24 hours, each ki o requiring after its explosion 100 metres of air, or 12-0 cubic metres hour y. Vitiated air odges in portions of the workings; in ki ogrammes of dynamite are consumed on each side in 24 hours, each ki o requiring after its exp'osion 100 metres of air, or 12 0 cubic metres hour y. Vitiated air 'odges in portions of the workings; in order to remove this 500 cubic metres of air are withdrawn every minute through a pipe more than 4 ft. in diameter. The water of the Reuss, on the Swiss side, is conveyed for 800 metres (equal to a co'unn of 85 metres) through an iron tube a yard in diameter to four bronze turbines, 8 ft. in diameter, making 160 horizontal revolutions per minute. Each turbine with its hundred vanes is cast in one visce. It has been found that neither iron pay steel gan resist. lutions per minute. Each turbine with its hundred vanes is east in one piece. It has been found that neither iron nor steel can resist for more than a few months the action of the water at a pressure of 18 atmospheres. On the Italian side the turbines move vertically 350 times per minute. M. Colladon, in 1852, after many tria's as to the resistance of air in tubes of different diameters, proposed to compress it by turbines in cooled cylinders for driving the Mont Cenis. Tunnel. In 1857 the Sardinian Government adopted Sommeiller's p'an of compressing air, by water serving as a piston, which limits the speed. M. Colladon's system of pumps working 80 strokes per minute, and ingenious'y kept cool, have twice as much power as those of the Mont Cenis, at one-third of the cost. There are five groups of pumps, three in each, 28 inches diameter, stroke 3½ feet. The compressed air rushes through a pipe 8 in. in diameter to the end of the lowest cutting, and further on through other pipes of ha f that diameter, ending in caoutchouc 2 inches. In the south tunnel there is an outflow of 276,000 gallons per hour, a quantity 200 times greater than that from Mont Cenis. greater than that from Mont Cenis.

Dr. Stapff, who is the head of the Geological Department, says that at present a systematic observation of the rocks of the north side only can be given. For 2000 metres from the entrance of the tunnel, it passed through gneiss-granite, and grey gneiss, with beds

of eurite and mica schist. Stratification hardly discernibe in the gneiss granite is evident in the gneiss. The courses of mica schist are principally in the grey gneiss, while they often disturb and encose on the hanging wall portions of the adjoining rock. The curite formations a so resemble veins as oc ated with mica state. A therefore, the second of the second normations a so resemble events as oc ated with micals ate. A thermometer sonk 40 inches in the rock had 67° Fahr, at 1443 metres from the entrance, 1118 metres above the sea level, and more than 500 metres vertically under the surface. The temperature of the air a little further in the tunnel was slightly greater; the annual mean temperature of the air at 60schenen 46° Fahr. Temperature of water 1500 metres from the entrance 63°. It appears to flow from above the tunnel. above the tunnel.

After a correspondence with M. Sommeiller about his boring machine, and a journey in 1863 to observe its action, I have since constant y insisted on the great importance in mining of assisting hand labour in boring by mechanical means. I now rejoice that a system invented by Thomas Bart'ett, and introduced by him under M. Brassey's direction in constructing the Victor Emanuel Rai'road, has been 'arge y improved, and in use both in the New and in the Old Word. The future prosperity of mining in Cornwal'i, in un'on with a technical education of her sons, depends main'y on a rapid economical and systematic opening of lodes in the o'der mining districts, and on the discovery of others in new ones on'y partially tried. It may be by deep adits crossing different strata and lodes at the rate of a fathom a-day, as, for instance, in the ground west of Fowey Conso's, alluded to by Capt. Rich, or from the bend of the Tamar under Hingston Down. After a correspondence with M. Sommeiller about his boring ma-

under Hingston Down.

With such aims, w der and longer stretches of ground must be included in one lease. Chemical works, well placed so as to receive and treat ores of such mixed products as are found in the eastern part of this county especially, and not depending on the success of any individual mine, might raise us to the level of the Germans, who have practically learned to separate, and avail themselves of their various mineral resources.

It would not be an Herculean task to pierce the Himalaya range, or to connect the N.E. progress of India with China has a rail and

or to connect the N.E. provinces of India with China, by a rail and tunnes from the Brahmaputra river to a great affluent of the Yangtsi Kiang, distant 100 miles, and thus trade with the interior of China by the shortest route.—Trebah, Sept. 30.

THE PROJECTED AUSTRALIAN TIN MINING COMPANY.

SIR,—Under the above erroneous title a letter appeared in the Supplement to last week's Journal signed "A Queenslander," and, from the misstatements therein, I feel it incumbent upon me to make a few remarks.

few remarks.

The Victoria Stream Tin Company (Limited) was most successfully launched last December, and, with plenty of capital, has now carried out extensive hydraulic works upon the Latrobe river, Gipps'and. All statements in the prospectus have been verified, and, in addition to the certified quantity of tin ore, gold is found mixed with it sufficient to pay all working expenses.

It is surely a childish argument to say that because the t'n deposits in Queensland and New South Wales are of inferior quality they cannot be richer in Victoria. Perhaps the writer is not aware that those are three separate colonies. No doubt the profits will be eminently satisfactory; but the writer forgets that there are other charges to be pad besides mere labour—the carriage of the tinto port, for instance, must be deducted.

The letter affor is internal evidence that the writer never resided in Queensland or in any free British colony, or he would have known

The letter after stores internal evidence that the writer never resided in Queensland or in any free British colony, or he would have known that the style of "Honorab'e" is used by all Mi isters and Members of the Upper House, and Mr. Davis, being only Chairman of Committees of the Lower House, had no right to that prefix. It is to be hoped that the "Gla-gow friend" has safer advi-ers than "Queenslander," for the letter furnishes a lamentable example of the folly of seeking information from one who knows nothing about the matter in hord. The moral to be drawn is too always for me to a we if the color of the seeking in the color of the see thand. The moral to be drawn is too obvous for me to spe ify.

HENRY CHALON, Secretary,
Victoria Stream Tin Company (Limited),

Bucklersbury, London, Oct. 3.

TIN IN AUSTRALIA.

Some few months ago you were good enough to insert extracts from a letter received by myse f from a practical authority on the tin supply in New England or Sydney district. I have within the last few days received another letter, and if you consider the follow-

the tin supp'y in New Eng and or Sydney district. I have within the last few days received another letter, and if you consider the following extracts sufficiently interesting for your paper you will, perhaps, be good enough to insert them:—

"In regard to the tin mines in this part of the country, they are beginning to look very dull, as predicted in one of my former letters. Cop's Creek would be worked out in less than two years this will be verified from the fact that in six or eight mouths there will not be a payable claim in all the Creek; indeed, if an Australian flood should come, as they do sometimes, all the workings would be swamped out, and never pay to open again unless thi is a great deal higher than it is now. There are eight or ten claims working, of which two or three are paying a small profit, and the remainder losing considerably. Some idea may be formed of the richness of the Creek when I say that 2000 tons of tin were taken out of an area not more than 1½ mile long. Middle Creek, from which a great deal of it has been taken, is run out, not a man working in it now. Vegetable Creek is also looking very dull, and the returns have fallen off great! there are not so many men employed in this creek ty 200 as when I wrote you last. Many of the claims are not pying expenses, and only a few making a profit. A claim which is the richest, and has returned for the last 12 months 50 tons as week, the ground is nearly run out. Another claim, from which 1100 tons were taken from an area not exceeding four acres, is, like the rest, nearly worked out; while the blocks adjoining those rich claims are doing very little. As the surface deposits in the Creek are getting exhausted, attention is now being directed to the background, and here I think it necessary to explain how the tin is deposited therein. The tin on only be reached by what is called here deep sinking, varying from 10 to 50 ft. through a kind of pipe clay, I most cases when meaning the wash dirt stores of quartz, showing occasionally good spots of

ground is near y exhausted, yet there remains a 'arge area which, with tin 20% a ton higher, and wages, &c., reduced 50 per cent, con'd be made to pay a fair proid. As the item of wages is not like'y to be reduced for many long years, it is evident that even with the rise that very ittle of it will be worked. Assuming this to be the case, there is still hope for the Cornish mines, and to whom an advance of 20.a ton wou'd be selvation.

A MINER.

West Briton.

CALIFORNIAN CAPITAL IN CHILE:

SIR,—I paid a visit late'y to the go'd fields of Catapi'co. ourney there is a very trifling matter. By land it is 38 mi e-By land it is 38 mi es from Va paraiso, northwards. By sea, in a steam launch, it takes about three hours. I shall soon have an opportunity of making the trip by ea, the distance of these fields from the heach is about 10 miles. by en, the distance of these fields from the beach is about 10 miles. These dirgings are very extensive, not only the bed of the rivulet but the benches, or bluffs, for a mile or two on each side of the rivulet but the benches, or bluffs, for a mile or two on each side of the river consist of gold gravel. By the enclosed, which please publish verbatim, you will have quite a di interested view of the quality of these fields. Mr. A. P. Burns is the teasurer and manager of the Lan Francisco and Catapilco Gold Mining Company (Unlimited). This company was incorporated in San Francisco, May 2, 1876, exactly on the same principle as the Great Comstock Vein Companies—that is, as many assessments, or as much money is asked as the operation requires, till it succeeds or bursts, and not limited in their resources, as is the case with English limited companies; who are operation requires, till it succeeds or bursts, and not limited in their resources, as is the case with English limited companie, who are continually obliged to re-issue fresh capital in consequence of such limitat on, which causes delays, legal and other expenses, operations stopped, salaries and incidental expenses going on, sometimes a year or more before the new capital has been issued. The limited liability system ruins two-thirds of English companies abroad, therefore I rejoice to see Americans starting their Chilian companies on the same footing as theirs at home. No time is lost in waiting for fresh calculated on. A simple cablegram to San Franci-co fixes the whole thing—no loss of time, no lawyers, no reconstruction, no salaries going on without the corresponding labour for such. To this in a great measure I attribute, as I stated in the pamphlet on the Emma Mine, the great success of American mines when managed by Americans. I am quite convinced and agree with the Gold Hydraulic engineers that are in the service of the Catapileo Gold Mining Company of San Francisco, that the Chilian gold fields are richer and more extensive than those of California. This was my conviction before any Californian arrived here. Their extent is great. They commence near Coquimbo, and extend as far south as the Magellan Straits. The Spaniards, however, only worked as far as the Indian boundary of Aranco. It is reported by the historians of Chile that Pedro Va'divia, one of the captains of Pizarro, who was sent by him to conquer Chile, employed at one time as many as 15,000 Indians in his gold washings, and working in the most primitive manner, often collected as much as 200 lbs. (pounds) of gold per day.

As you will have seen by the circular and card sent you, we have opened an office in Valparaiso as mining engineers. Henry and John Sewell, office Calle Cochrane, 102, Valparaiso, Chile. We are doing a brisk business, any amount of reporting and travelling about. The gold fever here will some day, not very remote, be greater than that of California. Since the San Francisco and Catapileo Company stuted here another party of Americans arrived; they have already located, and started a new camp. In my next I will give you the particulars of this turn out. I had an audience of Mr. Hanibal Pinty, a relation, and the next President of Chile, who comes into power before this reaches you, in reference to the protection of English mining companies. He informed me it was one of the principal matters that would be legislated upon at the commencement of his term. Mining industry, and especially foreign capital to develope this, would hav

capital to develope this, would have his immediate protection at tiern. HENRY SEWELL, M.E., F.R.G.S.

P.S.—I shall leave this for London, via Philadelphia, in two months time, taking with me several Chilian mining projecties.

RIO TINTO MINE.

SIR,-I wish some correspondent would give us information relating to the Rio Tinto Mine. According to the last report issued the company was said to he ve sold about 600,000 tons of pyrites for the next three years (in advance), or an average of 200,000 tons per annum. The report said the price got was at the rate of 54d, per unit for the sulphur, and 12s, per unit for the copper contents. But, Sir, what

-What is su phur per unit now? Oct. 2.

FOREIGN MINES-CAUSES OF FAILURES.

FOREIGN MINES—CAUSES OF FAILURES.

Sir.—By your kind permission I will give you one example out of many of the failures of English companies in America, where the Americans coming after have made the mines to pay handsomely, which will confirm to some extent my statements last week. The Crescent Mining Company was formed in London about four or five years ago, apparently under the most favourable auspices. An agent was appointed of the class I mentioned last week. Things from home looked rather suspicious after operations commenced, and Mr. Hill, one of the directors, went out to investigate matters, and found them anything but satisfactory. He directly appointed another agent, who, personally, was unknown to him, but was said to possess a good reputation. Mr. Hill, in order, as he thought, to make matters as safe as possible for the shareholders, appointed a young gentleman, whose relatives in England were his personal friends, financial agent in San Francisco, but it seemed to no purpose, for the company came to grief. About a year and a half ago this property was taken up by an American company, who had been recommended to it by Mr. John Jewell, son of the late Cupt. Jewell, of Redruth, who has had 14 years' experience of mining on the Pacific mended to it by Mr. John Jewell, son of the late Capt. Jewell, of Redruth, who has had 14 years' experience of mining on the Pacific Coast. This company naturally gave the management of all their concerns into his hands, who in a month or so got all the water drained; and, if we can give any credence to the Crescent Mill newspaper, the mine has now turned out a brilliant success. It may be said that had the English company continued they would have arrived at the same results; it was the good fortune of the present company, and not the skill or foresight of the persons concerned. This may be true, but the paper above referred to has given from time to time allogether a different version. I will not trouble you with any more such examples, your readers may readily find many of them if they look for them.—Oct. 2.

BETA.

THINGS AS THEY SHOULD BE.

THINGS AS THEY SHOULD BE.

Str.—The general complaint amongst capitalists a want of confidence, and that, perhaps, more especially amongst those who have been in the habit of speculating in mines; and there can be no doubt that this is the cause of so much shyness on the part of those gentlemen to subscribe to any new enterprise. We cannot for a moment suppose that the intrinsic value of mines has so much a tered as to produce such a pusi lanimous disposition. It is true that copper has been at a very low price for some time past, and tin also has had a serious droe; but many of us remember both at a lower figure than they are now quoted at, and it has been said over and over again that mining will never again revive. So much for the true inspiration of those prophets! As Mr. J. Y. Watson showed, in a letter jubilished in the Journal about a month ago, in less than two years, after one of the darkest periods ever remembered, there came a season of most signal prosperity. But some say there is not at present a gleam of hoje for the better. Nor was there then, yet a flood of prosperity soon rolled over the country. Could we understand the purposes of the Supreme Governor of men and things we might be able special of noje for the better. Nor was there then, yet a flood of prosperity soon rolled over the country. Could we understand the purposes of the Supreme Governor of men and things we might be able to arrive at correct conclusions; but since we cannot we had better not venture too far in prophesying future events. As in the natural world o it is in the commercial world a variety of times and seasons; winter succeeded by spring, and spring by summer. Night is succeeded by day, c'ouds by sunshine, and so or; therefore that by day, c'ouds

own p'ain straightforward statement of facts, supplemented by the

own p'ain straightforward statement of facts, supplemented by the testimony of the agent. Premium and promotion-money sacrificed for the good of the shareholders. Were this to become the rule instead of the exception of starting new companies, the pre-ent existing shyness on the part of speculators would soon be removed, and "the good old times" return again.

However, this is not the only instance. I have before me the prospectus of the Vale of Conway Lead, situated in the same township as the foregoing mine, in which the promoters show the most magnanimous spirit, and I have been given to understand that the shares are being taken up readily. From what I have been to'd the mine is far more promising than the prospectus states it to be. Here again is a display of singular modesty and candour, which shall obtain its merited reward. The managing director is a gentleman of unimpeachable character, a thorough man of business, and one who understands how a mine should be worked. His co-directors are men of sound business habits, and will I am sure take to heart the interest of the shareholders. The promoters of both these companies, as well as one or two more which have appeared in your columns, have shown a bright example, worth the initiation of one and all. have shown a bright example, worth the imitation of one and all.

I hope to be visiting the neighbourhood of these mines shortly when any interested in them may have the full benefit of my goin there.

JOHN ROBERTS, M.E.,

Mem. Minl. Soc. Great Britain and Ireland.

Symdde Dylluan Mine, North Wades, Sept. 27.

CORNISH MANGANIFEROUS ORES.

SIR,—We were very glad to see this matter taken up in the Journal of last week, for the future of Cornwall hangs, to a great extent, on the success of its iron ores and manganiferous ore mining. Four years ago the Corporation of Iron Miners commenced operations at Duchy Peru, in Cuby parish, when iron ores, as well as the metal, were at high fabulous prices, and a ready market was obtainable for any class of ore. The works were quickly extended; an engine was erected for pumping, several winding-engines (of that semi-portable kind so suitable for exploratory operations) found work in hauling the debris from the shaft, which was sunk to the 60 fm. level, and in drawing a quantity of ore for stocking at surface. The shaft was sunk perpendicularly 60 fms., and the lode proved by cross-cuts. At first and near the surface it con-isted of far quality hematite, but further down the lode became a solid channel of spathose ore, 40 ft. wide, traversed here and there by veins of lead ore, more or less valuable for silver. The lode was very porous, and abounded in cavities or vughs, and, consequently, dynamite was found to be the most eco--We were very glad to see this matter taken up in the Jourable for silver. The lode was very porous, and abounded in cavities or vuglis, and, consequently, dynamite was found to be the most economical explosive. Notwithstanding the large quantity of ore brought to the surface and sold or stocked, an infinitely greater amount remained opened out for stoping below. The spathose ore is pronounced by the best authorities, including Bessemer himself, to be admirably adapted for his process of steel-making, and when mixed with a due proportion of manganese is equal to the famous speigele sen ore. At Treamble a very extensive minehas been opened out close to the railway, and at Gravel Hell a lode over 100 ft, wide forms a bold headland fronting the thundering breakers of the Atlantic. So extensive are the works that the bare enumeration of what has been accomplished would take columns. Unfortunately, no soon-r had the works got into swing than iron began to fall as rapidly as it had ri-en, and the Cornish Consolidated Corporation was caught by the ebb t de, and left on the rocks. The expenditure in explorations had been and left on the rocks. The expenditure in explorations had been very great, and the capital became exhausted, and it was, therefore, impossible to force a market where Cornish ore was unknown, as the introduction of a new article is always regarded by manufacturers with extreme icolousy.

turers with extreme jealousy.

These iron mines were begun before their time, but we imagine These iron mines were begun before their time, but we imagine only a very short time before. The age of iron is past, that of steel is just beginning. We have seen within the last few years a district rise out of nothing to rank as the first iron producer in the world, only to be again left in the rear by the march of progress. The future of Cornwall lies not in its copper and tin, but its steel. In the Cleveland district of Yorkshire the first manufacturers are leaving the manufacture of iron for steel, and are importing suitable ore from Spain. Let it at once be recognised that Cornish ore is not inferior to Spanish, and the supply will be drawn from the home district in preference to the foreign.

We have visited manganese mines in the central district of Cornwall, and from what was then apparent from limited working the

wall, and from what was then apparent from limited working the production of manganiferous ore well keep pace with that of iron ore, and if the resources of the county are properly opened out labour will be found-occupation will be ensured for all the willing hand enwall will find.

Cornwall will find.

It does seem a strange fact in the political economy of a great country like ours that the miners in Wales should be able to command wages double those paid less than 200 miles away. We are confident that this will not last long, because the iron industries now springing up in the county will create such a decand for labour as will raise wages to a more equable level.

A CORNISHMAN.

Sent. 27.

CARDIGANSHIRE MINES FOR INVESTMENT.

SIR,—In my letter on the Revival of Mines in Cardigarshire, which you inserted in last week's Journal, I mentioned that in all probability one or two would shortly be brought before the public which would be worthy the attention of mining investors and capitalists.

would be worthy the attention of mining investors and captained.

The following is one of them:

PEN Y BWLCH.—This property is situate about seven miles eastward from the
Llanthangel Railway Station, and about six miles east from the Tolybont village.

It contains for very nearly one mile in length one of the largest and most masterly,

as well, I may safely say, the richest lode ever worked in Cardiganshire, it having

produced from the 20 fm. level under adit (which at the deepest point is only about

20 fms.) considerably more than a million sterling in value of silver-lead orc. The A may sorry way, the Frence node ever worked in Cardiganed from the 20 fm, level under adit (which at the deepest poir)
) considerably more than a million sterling in value of silver
to for ethronghout the vein make in solid ribs, varying fro
he lode being in places over 100 ft. in width. Many of thes
hout it, and when trid lafter trial have been made continue
antinued for more than a century, and each party have the
I the ore at the adit and to the 20 fm. level, each new trial h
:-fresh or new courses of ore having been always found, of
ug by the side so the former workings; and I have no hesita
hen the lode has been properly cross cut throughout the
sent depths, as much more will remain for taking away
ken away by the former workers. All that is wanted to
by richest, and most durable of the mines in the county is to
ystematically—this being the case, failure is impossible, and:
I will, there-fore, endeavour so far as lies in my power to pl
n my opinion, is essential for this purpose. It will be necess
ition of the mine, which stands on very high ground—I sh
1200 ft. above the sea level—and on this high ground the m
of a 20-in, horizontal steam-engine, &c, for working the
sis fixed; but that the lodes passing through the grant go the
sea rapidly from the western boundary towards the diffe
se eastward, so that by starting an adit level at this point
rhere a cross-cut of about 20 fms, waild cut the lode, the
and continued all the way to the extreme end of the working
de, and would gain a back of from 500 to 600 ft. in devia-or sons; winter succeeded by spring, and spring by summer. Night is sone succeeded by day, c'ouds by sunshine, and so on; therefore, that which we have a reason to expect in the future is a repetition of the which we have a reason to expect in the future is a repetition of the past. Loo' ing at things from this point of view we have no reason to expect in the future is a repetition of the because the content of the content of

much in excess of what the actual cost will be. For cross-cutting the last a driving or opening 100 fms. on the course of it, before calculating on any earlier and the course of it, before calculating on any earlier and the course of it, before calculating on any earlier and the course of the co

tice to the mine. Royalty, one-sixteenth.

Goginan, Oct. 4.
P.S.—In addition to the horizontal steam

P.S.—In addition to the horizontal steam-engine the pitwoth P.S.—In addition to the bottom of Pen-y-Bwich and Gibbs' shafts; ming placed to the bottom of Pen-y-Bwich and Gibbs' shafts; ming laid throughout the mine, with an excellent crushing-mill and ing apparatus—in fact, all that is requisite to carry out the ming apparatus—in fact, all that is requisite to carry out the ming apparatus—in fact, all that is requisited to arrive the ming apparatus—in the mi as proposed, as well as lead ore being raised on tribute

THE VALUE OF SAFETI-FUNE.

SIR,—Allow me to correct an error as to the name of the part having resided near Goldsithney, which last week appeared in length under this head, from Mr. Symons, of Truro. The person was an named "Boundy," but "Powning;" but, for the sake of brevily part sume, went by the name of "Poundy," I was present at the time hody was raised from the shaft, and was acquainted with the family and the same of the shaft, and was acquainted with the family and the same of the shaft, and was acquainted with the family shaft.

TRESAVEAN LODE.

Sir.—In last week's Journal I saw a letter from Mr. R. Sym of Truro, where he says—"The late Mr. Michael Williams, of I vince, believed that the Tresavean lode rau under Trevines hut no search was made for it, and I doubt not that a sarch we be useless." This brought me in remembrance of what I once there. When I was a lad, 45 years ago, I saw as fine a gossall running about east and west, a little to the south of the south. there. When I was a lad, 30 years ago, I saw as fine a gosan running about east and west, a little to the south of Trevine li as any man could wish to look at. I cannot say now how wit is, or if the underlie is north or south, nor can I say for eart is Tresavean lode. But this I know, there is a large lode there I can find it with very little trouble. It is likely that I am the man now alive that has seen it. At that time there was a fine of water to the south of it, which I believe to be rising from same lode, and if the proprietor of Trevince wishes to see the I will show it to him when I go to Cornwall. I will show it to him when I go to Corn Aberdaunant Mine, Llanidocs, Oct. 4.

IMMEDIATE INVESTMENT.

SIR,—Permit me to call your attention to the present indicate of a revival in the trade of both metals and minerals. It can kept in view too steadily, and as I perceive you have doneins of your leading articles, that the metal trade after all has as less than any branch of our commerce, except in one metal—which has fallen off in an unprecedented manner both in and quantities, accounting for the largest portion in the declination. our total exports.

Our exports of minerals have been, on the whole, good. Rue has the export of salt, particularly to Ireland, and by rail of Soland, been so good, and the export of "chemicals" prepared for mineral substances has been well sustained, and the demand Cornish china-clay has actually increased. One mineral will eag attention more than others, its value is so much greater, the capit application is according to the capital state. attention more than others, its value is so much greater, the capit embarked in its production is so vast, and it employs so great number of the population. I, of course, refer to coal. After the "coal famine," as the late season of high prices and inadequate production was called, the value of our exports of this mineral delined, as did also quantities, but in nothing like the same proprise but there has been a rally, and the exports are now advantable the present time. The demand is certain, the property is at doors, and its extent and worth is always ascertainable ab him one cannot in a single letter designate all the good opportunitions are also as the present time. The demand is certain, the ground of thus available, but one is eminently eligible just now—that of thus available, but one is eminently eligible just now—that of the company. It is situate in the richest, most popular and most enterprising county in England—Lancashire—contain Manchester, the great manufacturing capital of England, and like pool, which may claim to be the commercial capital, for alhour handresser, the great manufacturing capitat of England, and a pool, which may claim to be the commercial capital, for slib London has the largest number of ships Liverpool has the hear tonnage. Liverpool can take all the coal raised from the two for its export to Ireland, especially Dublin, would be a vastuinitself, if it had no other. Accordingly the company has important the number of the company is obliged to part from others as as to keen their connection together until it is from others, so as to keep their connection together until it is to raise sufficient from its own magnificent field, although the pasent raisings are very great indeed. The plant of the company very complete, consisting of railway sidings, 248 railway ways 26 flets or lighters, and three schooners to give facility for its tensive shipping trade. The management is remarkably commical, the coal is wound-up from the pits and tipped over intil waysons, the shoots heing so arranged that the coal is screen-list

mical, the coal is wound-up from the pits and tipped overhous wagons, the shoots being so arranged that the coal is screenshalf falls, the large coal falling into one wagon as the small caland slack is discharged into another.

The property is described as having nine ascertained seams with an aggregate thickness of 33 ft., all thoroughly workable, and excellent quality. It is, perhaps, necessary to inform investorable are not familiar with coal raising, nor with our coal commerce, but the decline in the value of the mineral at the pits mouth hand corresponded with that in Loydon and the large provincial terms. orresponded with that in London and the large provincial coal "rings" managed to effect monopolies and raised the pr Coal "rings" managed to effect monopolies and raised the prisi-ord nately until purchases consequently becoming linked, servene economised consumption, the "rings" like the Jammy,! Erie, and the gold "ring" at New York. The alteration at the prime menth was in few instances great, so that the article at the collection of the prings remunerative prices now. It is not yet so long agosite the operations of one of these "rings" on the Exchange "balle up the coal market in London to a monstrous and mischered degree, but in the coal districts the cost of the fuel was not at the commensurate. I have no doubt that Changel House Colliers deleted the commensurate.

degree, but in the coal districts the cost of the fuel was not star commensurate. I have no doubt that Chapel House Colliery debet tures offer a safe, stable, and suitable investment.

Lead mines are also at present very inviting to capitalist. It one of your leaders lately the sentence occurred, "Lead is the met of the future." If this is so there are fair hopes for our copper and better still for British tin; but whatever impediments the may be to better markets in those metals, there are none similar the way of lead. An extingular lead with the way of lead. An ordinary lead mine can be worked with comparatively small capital, and the demand has no limit at pressi in prospect of being attained. As fast as it is brought to surface the market is ready to receive it. Prices do not fluctuate as with other productions.

OCT. 7.

It is 8

1876

ge hare only called up 7500%, and distributed dividends to the nes have only called up 7500L, and distributed dividends to the nesh are only called up 7500L, and distributed dividends to the and of nearly a quarter of a million. West Chiverton, in Cornegad of nearly a quarter of a million. West Chiverton, in Cornegad of nearly a quarter of 70,000L, and Great Laxey from the late 2393,300L, on a capital of 70,000L, and Great Laxey from the late 3293,300L, on a capital of 70,000L, and Great Laxey from the late 34 per cent, on the amount subscribed. The North Cornegad back 734 per cent, on the amount subscribed. The North Cornegad Mining Company offers a fine opportunity for investing of the highest and most reliable authorities in England depase of the highest and most reliable authorities in England depase of the highest and most reliable authorities as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which the company chiefly relies as a "sylendid less the lods upon which th

PEMBROKESHIRE MINERALS.

Sig. The county of Pembroke, the most western of South Wales in.—The county of tended a mean breadth of 28 miles, and con-bot 37 miles long, with a mean breadth of 28 miles, and con-bot 38,000 acres; it is bounded on the north-east and east by Car-grand Carmarthenshire, the other sides being surrounded by the grand Carmarthenshire, the other sides being surrounded by the is 398,000 acres; it is bounded on the north-east and east by Carins 398,000 acres; it is bounded on the north-east and east by Carins and Carmarthenshire, the other sides being surrounded by the
is a rich agricultural county, but is also productive in mineis a great many good slate quarries being at work at the present
is a san instance of which I might refer to an excellent quarry
is as an instance of which I might refer to an excellent quarry
is as an instance of which I might refer to an excellent
is a few months ago, and appears to be turning out very sucrefed a few months ago, and appears to be turning out very sucsefully; there are already good prospects for slates, and there is
indust it will pay the present company well if it be properly desefully; there are also excellent slates at St. David's Head, which
will be well worth the while of a company to take up and work.
In the word work is an excellent copper mining property and brick ground,
with thousands of pounds. The copper is visible, and has been
treat to be of the best quality, both for the percentage of metal
matined and for the facility for smelting; it requires very little
is and there is an excellent site upon the property itself for the
metal of smelting-works, which would be conveniently situated
a shipping and general commercial purposes. I think the lode
smittin appears to be coming right across the St. George's Chanelfom Cornwall. All that is wanted to facilitate the rapid devement of the district is a railway down to this ancient city.

NEW CONSOLS. Q. David's, Oct. 3.

NEW CONSOLS.

Sa,—In the Journal of Sept. 30 I notice a letter from your old mepondent Mr. Symons, of Truro, in which he refers to an interies he had with the manager, Cupt. Pryor, respecting the post-memor of the monthly pay-day for want of funds to pay the men, & Cupt. Pryor is then asked the following questions by his intergator, Mr. Symons: —"You have had to call up a great deal of tor, Mr. Symons.

to carry out your works in New Consols to their present

Did you ever put off a pay-day?" He replied—"Not
I am not aware whether Mr. Symons is an official of New 10, but I am quite sure that Capt. Pryor does not wish to or no, our range of those who have had the misfortune off a pay-day. It is very seldom that such an occurrence sinthis county under the Cost-book System, but I believe 2 mouths since such an event did happen at Cape Cornwall to other mine in the western part of the county, which was, I maker the management of Capt. Pryor. I should like to know this mine was conducted on the Cost-book System, or wheit was a limited affair? I presume the latter. FAIR PLAY.

PROFITS FROM MINING.

-Inotice that not unfrequently people write in public journals of which they know but little, and sometimes on matters of a they know nothing at all. In last week's Journal I observe ter from the secretary of the Nascent Process, in which he al-to the great profits realised by metallic smelters, and as a proof instances the vast fortune amassed by the late Mr. Charles I believe no one will attempt to deny that immense are been realised by the smelters, metallic smelting being into which few have the means to enter—hence the mo-Will you, then, kindly permit me, through the medium of al, to inform your correspondent that, great as may have Lambert's gains during the comparatively short time that bunder's gains during the comparatively short time two opper smelter, he was not indebted solely to that busi-is great wealth. In the year 1840, when I was about to her from Chili, Mr. Lumbert asked me to accompany him his copper mine, the purchase of which for \$12,000 he hen concluded. Having carefully examined it, I said— Lumbert, your mine, as you are aware, is in sight very notwithstanding, it is my opinion and confident belief, raimest to a cartainty, that here you have a wast fortune almost to a certainty, that here you have a vast fortune Mr. Lambert, in addition to a high salary, offered to give or part of the mine if I would remain to manage it. It which made Mr. Lambert, and not copper smelting, casa rich man ere even he returned to this country and be-copper smelter, the wealth which he obtained from the mine which had been worked and left by the ancients time out giving him the means to embark in this heavy business. JOHN LEAN.

WEST TANKERVILLE MINE.

A supplementary to my letter in last week's Journal con-this flourishing young mine, will you kindly allow me to twords? My predictions that the quantity of ore produced the would increase and that the shares would soon rise have both come to pass, as Capt. Waters is this month increasing tity from 30 to 35 tons, and next month to 40 tons, and the shares have view in view since Lyvrate my last. The reshares have risen in price since I wrote my last. The re-ore—1280 fms.—at only I ton per fathom will last 2½ years is per month, and, taking the value at 144, 10s, per ton, early sale of ore of nearly 7000/, in value; deduct from this the working cost of the (last) year—4800/.; it leaves a ba-290/, sufficient to pay the interest on the 15 per cent, pre-bares and to leave a balance of 850/, equal to 2½ per cent. any share cepital. Besides this, the mine will be open-lat any day may strike a very valuable lode. It must to berved, too, that I take the lowest amount of ore per I take the highest, and allow the "backs" of ore to be in 25 years, it will, of course, pay the preference divi-ive II. 10s, per annum to the ordinary sharehol lers as qual to 50 per cent, after allowing for increased cost in 2 of the ore. The returns of ore in the latter case would The returns of ore in the latter case would Pased to 160 tons per month, or about equal to Lance. Sloking at the other extreme. The medium will give 25 at per annum dividend. A SUBSCRIBER.

THE PAR MINING DISTRICT.

lend was

Siz.—I regret to see, in the Royal Cornwall Gazette for Sept. 23, landsqueement respecting the New Pembroke Mine. I am fully state I no district in the county can compete for speculations in regulators to the large tracts of mineral lands belonging to Sir disan Rashleigh, Bart., M.P., Sir Charles B. Graves Sawle, Bart., E. Kicholas Kendall, and other gentlemen. No capita ist need go

can be seen in a cutting of the Cornwall Minerals Railway twelve lodes well defined within a distance of 40 fathoms. From one of the lodes so id stabs of tin, weighing 75 lbs., have been taken out, and are visible to the naked eye. There are many more lodes in his land not mentioned, nearly all alive for tin and copper, whilst ample water is obtainable for working machinery and for dressing the ores. In this district are many shallow progressive mines at a standstil, not for want of prospects or poverty of mineral, but for want of funds to carry them out. A small amount of capital would put them to work, and I doubt not but that many of them would prove as great prizes as the once celebrated Fowey Consols, Par Consols,

as great prizes as the once celebrated Fowey Consols, Par Consols and other mines. On the same lodes as Fowey Consols and other mines were worked on, in the land of the before-mentioned gentlenames were worked on, in the land of the before-mentioned gentlemen, good dividend-paying mines can be opened up as were those of 40 or 50 years ago, and the lords are liberal in the royalty, and give every encouragement to mining. There are also as good prospects in Sir Charles Sawle's, Mr. Kendall's, and other landowners' estates as in Sir Colman Rashleigh's land. What is mentioned is vis ble. Mining speculating gentlemen come and see, or send your agents—you need not go to Australia or any other place for tin and copper, but come to St. Blazey.—St. Blazey, Oct. 2.

P. Rich.

LONGITUDINAL EXTENT OF LODES.

SIR,—Your well-known correspondent, Mr. R. Symons, of Truro, has given your readers the benefit of his long and varie! experience of the continuation in length of the lodes of this county, in which he says that "Mr. W. J. Henwood was a very laborious investigator of mineral phenomena for a series of years," and that he said "no cop-per, tin, or lead lode in Cornwall or Devon could be traced for more than two m les." In Devon Great Carrols Mr. Symons admits that that lode has been traced for more than two miles since the publication of Mr. Henwood's book. He further state—"But in Cornwall no ode that I can just now think of has been opened upon so nuch as two m les, unless the lodes from Carn Bret to Stray l'ark have been opened so far." Here Mr. Symons leaves this important matter in dou't; and with a view of clearing it up I will give one in tance in dou't; and with a view of clearing it up I will give one in tance which I think is perfectly free from doubt, and may be taken as a for illustration of many other champion I dest of this county—Ting Tang main lode, on which the adit level has been driven the entire length of this sett into the adjoining one, Wheal Amelia and Pennance Con ole. The same lode is traced the entire length of Wheal Beauchamp into Copper Hill, East Basset, Wheal Baset, South Frances, and West Frances, a distance of about four miles, without giving one who knows the district the slightest cause to doubt. But even this is not all the fauth in convection with this great lode, all and the giving one who knows the district the slightest cause to doubt. But even this is not all the truth in connection with this great lode, alth high the following may not be so decidedly proved as the above, yet there are firegrounds, and in a me instances unmistakeable evidence, that this great lode eastward passes through Wheal Moyle, the northern part of Wheal Squire, all through Pold by and United Mines into Wheal Clifford and Wheal Andiew, a distance of two miles more, altogether about six males, and in this latter district, as well as the former, one of the nearly medical production compared. about six moles, and the this letter district, as well as the former, one of the most productive copper lades ever discovered. I need not go further east than Wheal Andrew, yet I have no doubt the same lode may be traced through Nangiles and other mines still further east, making a till-ngth of about eight miles. Having surveyed as an agent and work don this lode as a tributer through nearly all the mines mentioned, wil, I trust, be taken as evidence in eithlishing the fact that the longitudind extent of the principal lades of Devon and Company like may a them assertioned. and Cornwall has not yet been ascertained.

Carharrack, Oct. 3.

GWENNAR MINER

STREAM TIN.

Sin,—When theories are once received into our creed we are too prone to a there to rely on them, and to endeavour to support them, without taking the trouble to ascertain, if possible, by investigation their truth. Many theories long held as true, investigation has supplanted. We have been taking it for granted—I fear without much consideration—that all stream tin was washed off from the backs of lades availed when the relayers and there denotized when backs of blees, carried down the valleys, and there deposited where the current of the stream is not rapid. The late Mr. J. Carne, of Penzanes, was of this opinion, and the opinion—probably derived from him—has been very commonly held in the mining districts. There are, bowever, some facts which seem to militate against that theory. One is that you never, I believe, find any lode that gives evidence of any exposure to the action of water. Backs of lodes in general are several feet below the surface of the ground, and the special are several reto below the sariace of the ground, and the superincumbent earth appears never to have been acted on by water. It is compact, and apparently undisturbed by any action whatever. Another reason is that tin of the character of stream tin has been found so near the tops of hills that it could not have been washed off from lodes, and where, in fact, no lodes could be found. When the late Mr. J. Carne was told of this he had no answer to give—it collided with his theory. One other very strong argument against collided with his theory. One other very strong argument against the theory is that in a district in Australia which has yielded the best returns of stream t'n in that country the land is so elevated as to make it impossible that the tin could have been brought there in to make it impossible that the tin could have been brought there in the manner supposed by the theorists, and, moreover, there is no lode in the district. The minutest search after lodes has been made by one of the most practical of Cornish miners, and he alleges that no lode is there, and that the tin could not, therefore, have been deposited in the manner generally believed. Where, then, could the tin have come from? I will not undertake to answer that question, I leave others to answer it. I put this subject before your readers that it may be ventilated by men more clever than your humble servant, the writer. From all that I hear I infer that the Australian sources are being fast exhausted, and if it should so prove—if exhaustion does come—the price of tin will certainly advance, unless the miners should find fresh sources of supply somewhere else. Handreds of our best miners having been compelled to leave their native Cornwall are exploring other countries, and we cannot blame them; they wish to live, of course. I have not Mr. Henwood's book nor Mr. De la Beche's at hand to consult them on the subject of detrival tin, as it is called.—Truvo, Oct. 4.

R. SYMONS.

AN EXTRAORDINARY MINE.

AN EXTRAORDINARY MINE.

Sir,—In last week's Journal you kindly inserted my letter respecting the extent of lodes. When I wrote that letter I was not aware that in D you Great Consols the Wheal Maria Lode (i.e. the main lode) had been opened on for three miles in length. There is a "road," so to speak, at the adit level for that distance. The eastern adit begins at the Lumbwm river, and the opening the other end is about 40 fathoms from the River Tamar, but it is not altogether of the same level, because the Lumbwm river, where the adit is taken up, is about 100 feet higher than the Tamar at the other end of the works. They had, therefore, to rise to meet the adit from Maria. There is no mine in Cornwall or Devon where a lode has been proved for such a length. It is the whole length of the sett, so that Devon Great Consols may well be called an extraordinary mins. The lode in Maria part of the mines is, I believe, the widest part of it, but it is very wide generally throughout. In one place, however, it narrowed to 6 inches! The lode was not rich for all that distance, there are poor places in it, as in lodes in all good mines. good mines.

There are some other extraordinary circumstances connected with There are some other extraordinary circumstances connected with that celebrated mine:—1. It yielded more profit than any copper mine in England; nearly 1\(\frac{1}{2}\) million sterling! 2. The local director who was appointed about 30 years ago is still in office—I mean Mr. Morris, whose residence is near Tavistock. 3. The same manager has held office from the commencement, about the year 1844, till now—Capt. James Richards, a highly respectable man, and of the class A 1 amongst mine managers for intelligence and practical ability. Capt. William Teague, Capt. Josiah Thomas, Capt. Richard Pryor, Mr. Richard Boynes, &c., belong to that class. 4. This mine has more machinery and mine buildings than any other mine known to me. It is said that at New Consols the meanry is more than class A 1 amongst mine managers for intelligence and practical class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for intelligence and class A 1 amongst mine managers for i

preparing the arsenic and for refining it. Of this commodity a large return is made, and a much larger return is possible, but I suppose they limit their production to the demand. The sett is the largest in the West of Eugland, but there are larger setts in Camberland. I went over one there containing 10,000 acres, the property of one gentleman. gentleman.

gentleman.

In passing through Devon Great Consols yesterday my attention was called to the product then being drawn up from the new south lode. I was struck with the large size of the blocks of copper ore, and the quality of it. It is probable that that lode will restore the mine to the Dividend List. It has been cut at sundry points for a great length. A new shaft is being sunk on it (just commenced) at Wheal Emma to prove its quality there. The gossan is such as miners regard as a good indication of riches beneath. "Success to Devon Great Consols."—Truro, Oct. 4.

R. SYMONS.

MINING IN ST. JUST.

Sire,—On Friday last I was at St. Just—a parish which a few years ago was so famous as the site of mining industry, when employment for miners and artificers was abundant, and when there was "no complaining in the streets." Now, out of the 20 or 30 mines only five are working—Botallack, Wh-al Owles, Levant, North Levant, and Spearne Moor—the last named of which is likely to cases are large. I will name some of these which the large is the contraction of the contrac Levant, and Spearine Moor—the last named of which is likely to cease ere long. I will name some of those which the low price of tin has caused to be stopped—Boscaswell Downs, East Boscaswell, Boscas, St. Jast Amalgamated, Spearine, part of Wheal Owles, Cape Cornwall, Boswidden, and Balleswidden. Those are the principal, but there are numerous other mines of less note which have stopped. The number of persons employed by those mines was very large; most of the men dismissed have left the parish, leaving numerous houses empty. The rate collector informed me that there are 300 moccupied houses in the parish. When I mentioned that circumstance to a miner in Botallack village he said—"There will be 600 moccupied soom." Of course, so many removals seriously affect trade, and great complaints are expressed by shopkeepers. &c., on account of the "badness of the times." Capt R. Pryor told me yesterday that St. Just Amalgamated would not pay the cost of working with tin under 60l. per ton. Levant and North Levantare good mines, Botallack is about self-supporting, and so is Wheal Owles.

The part of Wheal Owles now being worked is called Wheal Ed-The part of Wheal Owles now being worked is called Wheal Edward, where the lode is being worked under the sea, as in Botallack and Levant Mines, and where, I am happy to say, there is a good copper lode. I saw a specimen of the ore at the account-house—the character and quality resemble the best which has been raised from Botallack and Levant. I hope that this copper lode will turn out productive, and give the company regular dividends. No one not educated at the mine could make it pay its way under the present depression. Mr. Boyns has been at the mine nearly all his lifetime, so that he knows how to do everything for the best. The tin stocked some year or two ago is still withheld from the market, waiting a bester price, which is expected by many. You may remember that Mr. Boyns, by stocking the tin a few years ago, gained about 50000; and if the present stock were sold off at the present price the company have abundant reason to be satisfied with the management. If the Australian tin should fail—as many persons predict ment. If the Australian tin should fail—as many persons predict it will—we shall see a revival of activity in St. Just again. A "knacked" mine presents a sa'l spectacle. But St. Just is not singular-Beago, Germo», Perranutinoe, Crowan, Gwinear, St. Hilary, St. Erth, Lelant, Gwennap, and Wendron are in a similar predicament, if not worse. -Oct. 4.

WHEAL GRENVILLE, AND ITS MANAGEMENT.

Sir,—Your energetic correspondent, "F. L. A. T. Rolda," will not onfine him-cli to the matters in question, but again, in last week's comme nin-er to the matters in question, but again, in ast week's Journal, gives a lengthy letter, chiefly assumptions, remarking primarily, "I still adhere to my figures," but he gives none, as if he were to do so they would certainly criminate him as a perverter of facts. The quest on is, has the position of the shareholders and the mine improved by the change of management? I gave you figures proving the benefit of the alteration in the Journal of Sept. 23, of the result of the first seven months' working and returns under new management, and compared same with a corresponding seven months of last year management, and compared same with a corresponding seven months of last year under old management. "F. L. A. T. Rodda" challenges their correctness. I lepeat the figures are correct as extracted from the batanes-sheets presented to the diarecholers at the general meetings held. Murch 25, July 8, and October 6, 1875, signed E, and O. E. John Watson, sceretary. The management at the time being in the hands of—

ed E. and O. E. John Watson, secretary. The management at the time vering he hands of —

John Watson, secretary, salary, per month £11 10 0

Edwin Hocking, managing agent 8 8 0

William Beometts, captain 9 9 9 0

Charles Bennetts, captain 3 13 6

Samuel Stephens, purser 9 9 9 0

John Watson heing secretary, and the others engaged at one or all of the foling mines—East Whed Grenville, New Rosewarne, and Treidigh Wood: the former are now win ling up, and the secretaryship of the latter removed. I effore childenge either one or all of the parties above named to e untar liet the wing: I say it is true that during the seven months, from Feb. 28 to Aug. 14, the monthly fore was a secretary of childen for No. 1 pixels of this per ton 53 6 1 in the quoted prices of reined tin ranged from 98 per ton in February to 92/1, ton in September, 1875.

om ser, to the costs from Feb. 26 to Aug. ...,
That the costs from Feb. 26 to Aug. ...,
The returns
aking 195 days' costs against 196 days' returns.
I further say that if refined thi had mainteined the price in 1876 as in 1875, the
ales would have realised \$11/4. \$8.3\text{d}, more, thus leaving a loss of only 150/. 6s. \$4\text{d}.

er month. Let the public judge whether the change in management was needed

the machinery never him tored the old managements.

onth. Let W. T. Rolda" says the machinery never hin toren unextended the following report to general meeting June 26, 1872; "We smore progress in the past quarter had we not been hindered the to our machinery." The returns during the quarter, signed on, scertary, were 41 tons 0 cwt, 0 cr. 17 lbs, an average of about the very large than the property of the property or not.
"F. L. A. T. Rodda" says the machinery never hin tered the old management.
Read the following report to general meeting June 26, 1872; "We should have

and ends of a considerable less reported value; in fact, the aggregate value of the ends and stopes at the present time is only 121. Us, per fathom, on which 66 men endployed on tutwork and 27 men on tribute, at an average of 12s, 44, in 1/c; still the returns are greatly in excess of past management, the sale on Wednesday last for four weeks being 1 tons 18 cwts. Oqr. 3 lbs., at 44. per ton, the largest sale ever made from the mine for four weeks warking.

"P. L. A. T. Rodala" says the prospects do not warrant the outlay of another shilling in machinery. As to this I must leave the agents to form an opinion and the shareholders to decide: taking, however, into consideration the fact that with the present price of tin the monthly loss is but small, and the returns are larger, which will be increased by every improvement in the mine cassing a reduced loss, and should trade with improved prices for tin—being now lower than ever known—take place, the prospects of the future are far, in my opinion, in favour of the mine. Besides which the plant is being augmented and improved by a monthly outlay, which is producing beneficial results, therefore the mine stands a far better chance to be worth 9/c per share than when recommended at this price in times past. In making this remark I do not justify the conduct of those who made the recommendation, however correct they may have considered themselves in doing so. "F. L. A. T. Rodda" wants a motive, and foolishly refers to West Chiverton, and insinuates that I am desirous of receiving some pecuniary compensation for my trouble. The shareholders, I have no doubt, would only be too happy in giving double the amount aw arded in that instance to the indefatigable parry who produced the change for similar results. But allow me to the 1"F. L. A. T. Rodda" that during the time I was in business I did not put all my means in one basket, nor my money in Turkish bonds. He will understand what I men by this. I have, therefore, no need for any recompense for my services, neither would

that influences are at work, and "F. L. A. T. Rodda" may be interested in en deavouring to purchase shares at low figures, and scruple not to make damaging insinuations to attain that object, but shareholders must look after themselves against such advisers.—Threadneedle-street, Oct. 5. F. G. LANE.

WHEAL GRENVILLE, AND ITS MANAGEMENT.

SIR.—Though Mr. Lane says I am wilfu'ly untruthful in my remarks upon the management of this mine, to show you that I do not stand alone in my strictures, I give you some remarks extract-d from the Western Daily Mercury of Oct. 2:—Wheal Grenville nominally 10s. to 15s., but the dealings in these shares are few and far between, although the secretary is reported to have put the mine in a sound financial position, yet the many break area and hindrances to the purposing machinery, and an increased openitive for water has naturally

10s. to 15s., but the dealings in these shares are few and far between, although the secretary is reported to have put the mine in a sound financial position, yet the many breal a res and hindrances to the pumping machinery, and an increased quantity of water, has naturally deterred speculators from operating on the market value of these shares. It will also be seen by referring to the agent's report that ground is being stoped that cannot pay its cust at the present price of tin. This system of stoping poor ground for the sake of showing how mary tons can be returned in a month is a vicious one, and ought not to be encouraged by a too sanguine preprietary."

On June 28 I wrote you that "it would appear as if the committee's sole object is to make expenditure and receipts balance at any risk, if only for the purpose of showing the shareholders that they have done that which the old managers could not accomplish." The remarks of the Western Dally Mercury fully confirm the views I then expressed. As that paper truly observes, the mine has been put in a sound financial position; but it has been done by heavy calls upon the shareholders, not from profits, and the market value of the mine, so far from being enhanced by the soundness of its financial position, is actually 13,000% less than when the mine was encumbered with debt; therefore, cui bono? The result of the secretary's financial arrangements is simply this—Mr. Lane tells us that when he assumed the management he found himself the possessor of a legacy of nearly 5000%, due to merchants; this debt was no secret. I have referred to the balance sheets issued by the former management, and find that the amount due to the merchants was regularly charged in the liabilities of the mine, therefore the debt was well known to the shareholders. Even with this debt existing upon it the mine under the old management stood at a market value of 18,000%. To wipe off the debt the present management with management with no debt, but a next to value-betward that the sale when t

SIR,—As a shareholder in this mine and a subscriber to the Journal, I have read the whole of the correspondence emanating from your correspondent "F. L. A. T. Rodda" with reference to the past and present management of this mine, and I must confess that I perceive more spleen and ill feeling in his letters than intelligence by which present management of this mine, and I must confess that I perceive more spleen and ill feeling in his letters than intelligence by which the adventurers are likely to benefit. It appears to me that his sole desire is to damage the property by making believe that the present executive are incompetent to manage the company's affairs; whether this is so or not the shareholders are best able to judge. All I can say is that the quarterly accounts are furnished to us in as clear and concise a manner as one need wish, and having exercised my privilege as a shareholder to see the books of the mine under the old and present management, I have no besitation in saying that every facility has been offered and every information afforded me that the secretary could give. I find that the committee meetings are regularly held, and a most rigid examination of the costs and merchants' bills is made before the plyment is allowed. My only objection with reference to the present management is that the agent of the mine and his son, the clerk, should have the whole of the affairs in their handsat the mine—that is to say, the set ing of all bargains, the engaging of all surrace labour, the ordering of all material, and the payment of the men's monthly earnings. Should there not be a purser appointed to superintend the pay and to make up the books of the mine?

With reference to the statements made by "F. L. A. T. Rodda" (why does he persist in writing anonymously?) I think Mr. Lane's figures pretty well show that had the price of tin maintained its value the monthly loss would have been not greater than under the late management, and that further than having to pay the heavy debt hunded over to the present committee that the calls on the shareholders would have been but trifling. In last week's communication I see your correspondent intimates that the secretary of this mine is the largest shareholder. That he is a large holder the share list will prove, but whether he intends to find some 12 or 14 pages in a large ledger with his tr

[For remain ter of Original Correspondence, see to day's Journa..]

GOLD MINING IN VICTORIA.—The Melbourne Argus states that the returns from the quartz mines of Sandhur-t, which is now the premier gold field of the Colony of Victoria, keep quite up to their average. At Stawell, which is the second quartz reeing town, 65 tons of stone, got at the great depth of 166 if t, crushed on July 26, yieldes 517 ox of gold, or nearly 8 ox 5 to the ton, which is regarded as a magnificent return. The Magdala Company, at Stawell, were at last near completing the crushing of stone obtained by them at 1700 ft. The Newington and Pleasant Creek Company, at Stawell, have reached a depth of 1808 ft., the deepest in Victoria, but have not yet found the reef they are seeking for. The mining accidents of the year 1875, chiefly from fall-of earth, caused 83 deaths, averaging in alluvial mining one death among every 678 miners engaged, and in quartz mining one to every 351 men engaged; or, stated differently, the deaths thus caused were 1720 per 1000 of alluvial miners employed, and 2784 per 1000 of the quartz miners. This is a high ratio.

MOONTA.—A trial shaft sunk near to the powder magazine is on a lode of a very promising character, the ore being grey and yellow coated black. The lode on the sand-hill, understood to be a new one, is also of a very promising character, the ore leting greys and yellow coated black. The lode on the sand-hill, understood to be a new one, is also of a very promising character.

KURILLA.—At the 45 fm. level of the engine-shaft there is a considerable improvement in the lode since driving was resumed. At the 35 a fine bunch of ore, by the side of the lode, has been cut. It runs north, contains 7 ft. wide of sqiders, which would average over 20 per cent. The yield for June and July would thus be over 26t tons, and it would average over 16 or 17 per cent. The leaves a fair mergin for profit. The reserves of one found are more than equal to the capital subscribed, and, when this and the yield are taken into consideration, the prospects of the mine may well be painted in go GOLD MINING IN VICTORIA .- The Melbourne Argus states that

e prospects of the mine may were seen as a see a

lode is well defined, from 2 ft. to 2 ft. 6 in, wide, between good walls. In the eastern end there is a good lode standing 13 ft. high. The nature of the ore from this lode is green carbonate and grey ore, mixed with fine gossan and spar. The other parts of the mine are looking well. The lode in the engine-shaft is yielding 12 tons of good yellow ore per fathom. There are from 50 to 60 tons of ore on the floors for the past fortnight's work.—South Air tradian Alterties of Angust 10.

THE WALLARDO.—We understand that active operations are being carried on in the eastern sections of this mine, and that a new shaft is being sunk at Sticling's. The arrangements for pumping the water by the Matte agine are nearly completed, so there is a prospect of active work being done in this portion of the mine. A very long level at the 42 has been holed through, thus connecting the two mines. Excavations, we observe, are being made near Eider's engine, and it is understood that a new engine will be created there to work some expensive dressing machinery. The new steam-whim is nearly ready for work. The prospect is, we should imagine, very favourable, as at the deepest point in Hughes' shaft, 152 fathoms down, it has been assectained that the one ground is continued under the slide.—South Australian Register of Angust 10.

HOLLOWAYS' OINTMENT AND PILLS-RHEUMATIC AND NERVOUS
PAINS.—The chilly mornings and evenings will provoke these tortures in consti-HOLLOWAYS OINTMENT AND PILLS—RHEUMATIC AND NERVOUS PAINS.—The chilly mornings and evenings will provoke these tortures in constitutions susceptible to these maladies. Nothing affords so much relief as Holloway's ofintment well rubbed up in the skin after repeated warm foreintations. Thousands of testimonials bear witness to the wondeful comfort obtained from this safe and simple treatment, which all can adopt. Holloway's Onte ent, sasted by the judicious use of his pills, is especially serviceable in as-maging the sufferings from camps and other muscular pains. The unite tefforts of these incomparable remedies not only release the sufferer from intaleral to torments, but expel forfithe time being the atent and unknown cause of gout and rheumatism.

Meetings of Bublic Companies.

SIERRA BUTTES GOLD MINING COMPANY.

The thirteenth ordinary general meeting of shareholders was held on Thursday, at the Cannon-street Hotel, Mr. Lewis R. Price, the chairman, presiding.

Mr. Justy SAUL (the secretary) read the notice calling the meeting. The directors' report was taken as read.

The Charlaman said the accounts now submitted varied very little from the previous accounts, and needed but small comment upon his part, but there was one innovation which had been introduced, and the was then appropriation of a certoin of the company was proved by Article 147 of the Articles of Association, which stated—"The directors may also, before recommending or declaring any dividend or bonus, cause to be reserved out of the company, and be carried to such separate account as they may direct in the accounts of the company, and be carried to such separate account as they may direct in the accounts of the company, any sum which they may think proper or desirable for equalizing dividends to be paid at yearly or other periods, repairing or maintaining buildings of the company's property, or for meeting any future or unforescence-penditure or configenceies or risk, liability, or loss, to which the company or its asset may be subject or liable, but any such reserve fund, or the applicable to any purpose to which either the capital or revenue for the time being of the company, or any part thereof, may for the time be applicable. Under the company, or any part thereof, may for the time be applicable. Under the company abeveground, such as mills and other buildings, necessarily devices of the company abeveground, such as mills and other buildings, necessarily devices of the company abeveground, such as mills and other buildings, necessarily devices of the company abeveground, such as mills and other buildings, necessarily devices of the company abeveground, such as mills and other buildings, necessarily devices of the company abeveground, such as mills and other buildings, necessarily devices of the particle of the p

difficult to see. There seemed to be an idea that when mon all be divided; they mut first consider how much of that which was their own they could afford leave the business in a proper working condition. Now, he remainder of the condition. Now, he remainder of the condition of the condition of the condition. mot resist any un hie strain upon the finances of the compinitive. The whoter was coming on; the stores now only represented \$25,000, or about \$5000L, and they were dedicant in such bulky articles as timber and other essentials. These could not be hauded in winter, and it was necessary to make some timely provision in that the mines might not be stopped. They would remember that there was a short stoppage at the Eureka, by which they lost some timely provision in that the mines they had now got in Mr. Johns a man who was taking care to provide all these things in ample time, and they must not stint him in money to be haid out in stores, because they might rest assuced that nothing would be purehased which was no absolutely indispensable. (Cheers.) The remittances from the mine fluctuate if greatly in the two half-years; in the first half of the year a great deal to money was generally set free by the consumption of stores, and in order not to allow the money to lie in Sun Francisco it was sent overto this country, but it was to 16,000, remitted, but from July to December, 1875, there was not remove which they could divide. From Jan. I to June, in 1875, there was 16,000, remitted, but from July to December, 1875, there was not the maintenance of milks and buildings would be nearly welf from the sunt of the maintenance of milks and buildings would be nearly to be a supply of the suntance of the ground which be nearly in the suntance of the ground which be nearly in the suntance of the ground which be heavier. He had stated that they had penetrated a large vein of low grade ore at the 7th level; of course they must not set too much store by that until they had been 18,000, remitted, while they had gone through in the 6th level, and they had to run out the ore through they had gone through in the 6th level, and they had to run out the ore through they had gone through in the 6th level, and they had to run out the ore through they had gone through in the 6th level, and they had to run out the ore through the main th

whole cost, but they would, by crediting the reserve, have fains in band to seat the whole cost of the new mill. He believed this was all he we see he seat the whole cost of the new mill. He believed this was all he we see he seat the whole cost of the new mill. He believed this was all he we see he see that the whole cost of the new shappy to a war. (Gherral, With 1976 and 1976

that at future meetings a integraph of the the transfer of the Chairman.

Mr. T. C. Weight endorsed the remarks of Mr. Conybeare relative to Mr. John. The Chairman.

Mr. T. C. Weight endorsed the remarks of Mr. Conybeare relative to Mr. John. The Chairman said he might mention that the following telegram had beare ceived relative to the Plumas Eureka Mine: —"Patents for timber land at Euria Mine virtually secured; no adverse claims filed; time expired."

The report was then adopted.

On the motion of the Chairman, seconded by Mr. Richard Geavs, a divided of 10d. per share, free of income-tax, was declared on the Sierra Buttes ordiary shares, payable on Thursday, the 12th inst.

On the motion of the Chairman, seconded by Mr. Lambert, a divided of 1s. 2d. per share, free of income-tax, was then declared on all the Sierra Butte shares, payable on Thursday, the 12th inst.

On the motion of the Chairman, seconded by Mr. Lambert, a divided of 2s. Particle of the Chairman, seconded by Mr. Lambert, a divided of 2s. Particle of Mr. Tenden, seconded by Mr. Lambert, a divided of 2s. Particle of Mr. Tenden, seconded by Mr. Lambert, a divided of 2s. Particle of Mr. Tenden, seconded by Mr. Lambert, a divided of 2s. Particle of Mr. Tenden, seconded by Mr. Lambert, a divided of 2s. Particle of Mr. Tenden, a vote of thanks was passed to the Chairman, and the meeting broke up.

LONDON AND CALIFORNIA MINING COMPANY.

The tenth ordinary general meeting of shareholders was held of Thursday last, at the Cannon-street Hotel,

Mr. Lewis R. Price, the Chairman, presiding.

Mr. Saul (the secretary) read the notice calling the meeting and the report of the directors was taken as read.

The CHAIRMAN said that the accounts embraced a period of the months. They were aware that on a furner occasion there was all the counts of the counts of the counts of the counts of the counts. months. They were aware that on a former occasion there was an interval of three months between the general meeting of this company and the Sierra Buttes Company, but it was found more committed for the shareholders of the two companies that the meeting nient for the shareholders of the two companies that the meeting should be held on the same day, which was now done. The item in the accounts were very few. The balance standing at last secount was 76894. 94. 31., and the present balance was f6.14k is, showing an increase of 8455t. 17s. 9d., being a recovery from all sources during the nine months at the rate of 900t. per month. The total balance thus shown it was proposed to carry forward to not account, under the circumstances stated in the report. On the lead bearings of the question he would offer no observation, because it did not contain the province; but, looking at the question as a matter of real sirange, and of real interest to the company, he was authorised to say that the barder within his province; but, looking at the question as a matter of real elevated in more useful purposes in the development of the money (which could be development of the money (which could be development of the pain of the work of the country of the work of the w

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dit was thought better not to spend any more money upon it. The work was redirected to opening up the stope which he had mentioned going south, and was discensively and the stope which he had mentioned going south, and we discensive the construction of seeking the east vein; at the same time, it is deferred to opening up the stope of seeking the east vein; at the same time, it is deferred that a shaft should be allowed the tender of the vein. The only 49- II they would have to run the cross-can before they reached the vein. The only 49- II they would have seen from the first prospecting were the ore was as slight contraction in the drift south of the same that the north and the state of the same the first point promised very well. It was mental that the first was the ore was still good. They would have seen from the state of the same that the same that the same the same that the same t

essus, and directors certainly ought not to be left in a position to be ke advantage of any gleam of prosperity. (Cheers.) moddles: How much is actually in hand at present?—The Charlet 16,000%.

BOET said as he understood that there had since been a clean up of ?—The Charlet 16,000%.

BOET said as he understood that there had since been a clean up of ?—The Charlet 16,000%.

BOET said as he understood that was the gross amount, from which to be deducted the expenses. He could not say exactly what the exdep. The probably there would be about 1000%. left, which, however, serviced here for some time.

Fig. Then we shall have about 18,000%, taking credit for everything? BMAS said that would be about the amount.

Toy said he had been in communication with the directors with respective sition of this balance in hand. He noticed that in a previous half-year was a dividend of 1s. per share that after payment of that dividend by 7600% carried forward, and on that occasion the excellent Chairtell the meeting that the prospects of the company were not as very any rate there was a more gloomy outlook for the mine than he had note to douy. Therefore he could not quite see why such a large sum to be held in hand. On looking carefully into the report he saw no apthing of the kind, and the first mention of such sum being required he directors after he called attention to the fact that in his opinion, as r and also as a public accountant, th it would be right in all interests portion of the profits in hand, and carry forward the other portion. \$5,000% had been built up from the year 1872 by gradual degrees, so the profits in hand, and carry forward the other portion. \$5,000 had been built up from the year 1872 by gradual degrees, see an item of capital account must be recouped out of profits; but in the subject of the profits in hand, and carry forward the other portion. \$5,000 had been built up from the year 1872 by gradual degrees, over an item of capital account must be recouped out of profits; but in the subject of the profi

better kept in hand for the present. had no desire to press the motion against the wishes of the

Mr. LAMBERT said he also was quite willing to leave the matter in the hands of

Have you any objection to say what the probable requirements HAIRMAY said it was impossible to do that at the present time, trans drawn up the directors were told that they could not distince was an end of if. Up to the time of receiving Mr. Bolton's looked upon it in that light, but after the receipt of that letter see as to whether the directors could really safely part with the it would deprive the directors of the means of developing the revent of any discovery being made.

is to whether the directors could really safely part with the would deprive the directors of the means of developing the int of any discovery being made.

In other than the interest of the means of developing the interest of any discovery being made.

In other was the interest of the interest of the control of the contr

ch a course, dit that the shareholders would hardly wait till the 35,000. hey appropriated the profits to the payment of a dividend, uld be desirable to take the proper legal steps to divide any tremain after providing for the proper development of the

said he gathered that it was the general opinion that, inde-tal oxinion, the money in the hands of the directors should be the present for the possible rejuirements of the mine, and in the id adviser shall try to take such steps as may be necessary to pre-saily of accumulating such a sum as 35,000. before the commence-

unulating such a sum as 35,000/. before the commence-dends. (Cheers.) withdrawn, and the motion for the adoption of the carried unanimously. GEY, seconded by Mr. BOLTON, the retiring director— dected.

NEW ROSARIO MINING COMPANY.

meeting of the shareholders of the above company was held on mesday last, at the Cannon-street Hotel,

Mr. Goodson in the chair.

Mr. M. HEARN (the secretary) read the notice calling the meeting. The CHAIRMAN, in moving the adoption of the report and acousts, said: Gentlemen, the directors have called you together on the adoption of the report and acoustic states. casion in conformity with the wish expressed at the last that some scheme should be devised by the directors for mg further for the financial requirements of the company, in providing further for the financial requirements of the company, in the event of the anticipated improvement in the mine being realised after the workings were carried beyond the influences of the caunter lode, which formed, as you are aware, at that time the engrossing typic of discussion. Our circular of Sept. 18 will have put you in passing of the instent information as to the condition of the mine, and we have haden called for a strong and united effort to preserve their property and provides make the condition of the means to obtain speedy and profitable results it is at this juncture. The restriction is the lode in depth have been near enouraging, and it is now an ascertained fact (16) that after thereever thinking of the shaft in order to the fact (16) that after thereever thinking of 14½ varas he has found the lode considerably improved. At the same time, however, he strongly urges the advisability of exhibiting the shaft to a lower depth of 25 varas or more, so that he may be in a

position to open new levels on exceptionally good ground. We need not say that even your practical ofnew would recommend such a course to be taken and it is assuredly the safest one to assure specily and lasting returns. The direct tors, after much consideration, found numerous difficulties presented themselves in devising a scheme for restoring the financial position of the company on a sound basis, and as time was a great object it was determined to go to the shareholders for the required assistance in the form of loan. After considering and discussing the several suggestions, the directors will believe that the best and specifies method to see the particulars of which you have all received. Moreover, as an earnest of their convictions and their desire to assist towards the success of that scheme, they have, as you are aware, agreed to contribute 10½, individually, and to forego all the fees which have accrued to them. We need not, therefore, again remind you that the amount fixed as the minimum —viz, 650%, must be provided, otherwise the interests of the shareholders in the mine will be seriously imperilled if not about their own and to show their own earnestness they have not been unmindful of their views, and to show their own earnestness they have not been unmindful of their views, and to show their own earnestness they have not been unmindful of their views, and to show their own earnestness they have not been unmindful of their views, and to show their own earnestness they have not been unmindful of their views, and to show their own earnestness they have not been unmindful of their views, and to show their own earnestness they have not been unmindful of their views, and to show they are all the shareholders who may address the meeting.

Mr. Wandistry 18 of the proper course to pursue, and we now hope for most profitable results. I should like to hear the opinions of the shareholders who may address the meeting.

Mr. Wandistry 18 of the proper course to pursue, and we not shareholders and opinion that i

GAWTON COPPER MINING COMPANY.

The general meeting of shareholders was held at the company's

offices, Austinfriars, on Thursday,—Mr. HUNTER in the chair.
Mr. James Hickey (the secretary) read the notice convening the meeting, and the minutes of the preceding one, which were confirmed. The statement of accounts showed a total expenditure of 1852l. 17s. 10d., and total receipts 1499l. 18s. 1d., leaving a debit balance of 352l. 19s. 9d., and the subjoined report of the agents were

of 1852. 178. 101., and total receipts 1499. 18s. 1d., leaving a debit balance of 352. 19s. 91., and the subjoined report of the agents were submitted:—
O.d. 3.—We beg to hand you our report of this mine for the general meeting to be held on the 5th inst., showing the present position of your property. The 117 is driven east from the engine shaft 5s fms. 5t., which has not been extended since the last general meeting. Morgu's winze, sank below the 117, has been resumed, and is now down 12 fms. 2 ft. 6 in. below the level: some 3 fms. above the present bottom an intermediate level has been driven east 5 fms. 1 ft., through a lode 7 ft. wide, varying in value from 12t. to 18t. and 28t. Per fathom. We purpose to continue the sinking of this winze some 3 fms. further, and then extend a drivage east beneath the rich ore ground, as described above, which is a very interesting point going down in the bottom of the mine. The lote in the stopes in the back of the 117 is worth 100, per fathom. The 105 is extended east of engine-shaft 101 fms. 7 in.; the lode in the latter part of this drivage for severel fathoms has shown a gradual improvement, from producing occasional stones of good quality ore to a lode in the end 4 ft. wide, worth 8t. per fathom. The lode in the rise going up in the back of the 105, to communicate with the winze sinking below the 95, is in both points worth 10t. per fathom. The lode in the stopes in the bottom of the 95, is down 4 fms. 5ft. below the level in a lode 6 ft. wide, producing very strong arsenical mundic, intermixed with ore to the value of 9t, and 8t. Per fathom. The 95 has not been extended since the last general meeting, which is driven east of shaft 25 fms. The 25 is driven east of shaft 195 fms. The 182 is driven east of shaft 195 fms. The 282 is driven east of shaft 195 fms. The 182 is driven east of shaft 195 fms. The 182 is driven east of shaft 195 fms. The 182 is driven east of shaft 195 fms. The 182 is driven east of the 182 wide, producing very strong arsenical mundic, intermix

exclusive of the 194l. dues allowed to remain in abeyance, but they had been unable to do so. He had pointed out to their purser the desirability of selecting the best days for selling their ores, so as, if practicable, to prevent their coming into the same ticketing as, if practicable, to prevent their coming into the same ticketing with the large sellers, having noticed that when the sales were large the standard was usually relatively lower; but the purser informed him that the effect of the proposed change had been tested on previous occasions, and there was practically no difference in the price obtained. As to the report, he thought there was every encouragement to push on with their work, and with a fair standard there was no doubt that they would meet costs, with a prospect of making profits in the future. In August he had taken the opportunity of visiting the mine, and had had a very satisfactory interview with the lord (Mr. Bailey), and believed that interview would be of value to the shareholders. Mr. Bailey quite entered into their views, and was anxious to co-operate with them for their mutual interest. He had very liberally remitted the dues during pleasure, and not only so, but had permitted the 194t due to him to stand over. As to the mine itself, the appearances were encouraging, especially as to the \$2 and the 105. He believed the \$2 to be the pioneer level, and that 82 and the 105. He believed the 82 to be the pioneer level, and that it was likely to come into a good course of ore under the old workings. In the 117 fm. level, the bettom of the mine, a winze was being sunk, and if it went down satisfactorily they would then resume the sinking of the engine-shaft, and would look forward to good results. He had only further to move the reception and adoption of the report and accounts.

en said that after long experience of mining he had come to the

A SHAREHOLDER said that after long experience of mining he had come to the conclusion that it was a far preferable course to forward the agents' report to the shareholders with the notice of the meeting. It was almost impossible for a practical man to follow it and offer suggestions upon it by simply hearing it read. The CHARMAN could see no objection to the course proposed, but it never had been done, and he would remind the shareholders that the agents' reports appeared from week to week in the Maining Juwral.

The report and accounts were then unanimously adopted.

The CHARMAN said that the next business before them was the consideration of the call, and thought it would be best to make it the same as last time. They had a balance of 3322, 199, 94 to provide for, including the 194. owing for dues; and although they would not have to pay the dues at present, he thought it best to provide for the full balance. He, therefore, proposed that a call of 2s, per share be made. He should have mentioned, with regard to the returns, that the accounts had been adversely affected by the fall in the price of mundic. Formerly they got from 27s to 28s, per ton, but they were now getting but 18s, and as they raised a rather large quantity—they had now 100 tons on hand—the decline was an important one.

The call was then unanimously agreed to, and upon the proposition of Mr. PAGE. econded by Mr. McCallan, the committee were re-appointed, and thanks having een voted to the Chairman the proceedings terminated.

SOUTH CONDURROW MINING COMPANY.

A general meeting of shareholders was held at the company's offices, Austinfriars, on Wednesday,
Mr. H. J. Marshall in the chair.

Mr. James Hickey (the secretary) read the notice convening the neeting, and the minutes of the preceding one, which were confirmed. The statement of accounts and the subjoined report of the

firmed. The statement of accounts and the subjoined report of the agents were submitted:—

Oct. 3.—The lode in the 93 west is worth 10t. per fathom. We have lately sunk the No. 2 winze from the 82 to the 93, which has opened a communication between these levels to the west of the cross course, and given good ventiation. The lode in the winze referred to is worth 20t. per fathom. The 82, east of the cross-course, is worth 9, per fathom. The lode in the 83 end west has lately been cut into, and found to be unproductive. We have resumed driving the 70 end west on the great lode, which yields low quality tinstone. The winze below the 80 on West Basset lode is communicated to the 70. Six men are engaged driving the 70 cross-cut north of West Basset lode to intersect the tin lode, which we hope to reach in two or three weeks. The 80 end east is worth 8t. per fathom. The 60 end west is worth 8t. per fathom. The 50 end west is worth 8t. per fathom. The 50 end west is worth 8t. per fathom. We have sunk the new shaft from the 30 to the 40, timbered the sunface, which is a very favourable feature in the mine. The 50 end west is worth 7t. per fathom. We have sunk the new shaft from the 30 to the 40, timbered the same, and made it complete for hauling through. We have just set the 40 to drive east and west in easy ground. The lode in each end is worth 7t. per fathom. The boundary shaft is sunk 30 fms. below the surface. We purpose to sink a fathom or two deeper, and drive out a speculative cross-cut to prove the new ground. Owing to the stoppage of East Wheal Grenville Mine we have had a great increase of water from that direction, which has necessitated the putting down larger pitwork. Since the new pitwork has been fixed the engine can keep the water under easily. We also had the misfortune of a breakdown of the stamps axle, thereby causing a great portion of the stamps to remain idle tendays. A new axle has been put in. The stamps are now in full working order and doing well. The tribute pitches throughout the mine have gents were submitted:-Oct. 3.—The lode in the 93 we

say, was in excess of that raised in any previous 16 weeks, and as to the cost they had raised it at 10s, per ton less than on any previous occasion, the cost being for the 16 weeks 36l. 12s., which was 12s, below that of the preceding 16 weeks. The amount realised for their tin was 15s, per ton less than it had ever been since the company had been in existence. The quality of the ore was very good, about 66½ lbs. to the ton, which was a higher produce than for any 16 weeks since January, 1876. They would recollect that at the date of the last account there was 600l. due to merchants. They would, however, see from the accounts that all this had been worked off, and all the merchants' bills have been paid up to last Saturday. The tin had been sold up to last Wednesday, and, as their

Saturday. The tin had been sold up to last Wednesday, and, as their last accounts were paid up to Saturday, so they could not come much closer. He concluded by moving that the report and accounts be received and adopted.

Mr. L. E. Ross seconded the motion, which was then put to the meeting, and carried unanimously.

The CHAIRMAN said that the next resolution was one to which they would all no doubt agree. It was that a dividend of 3s. 6d. per share be declared, payable forthwith. They would have seen that the accounts showed that they had an available balance of 1482. 12s. 5d., out of which 26d. was brought forward from last account. The proposed dividend would absorb 1071/., leaving 411/. to carry forward, and increasing the balance by 145/. He would ask some shareholder to move the formal resolution.

Mr. L. E. Ross moved, Mr. Weston seconded, and it was unanimously resolved, that a dividend of 3s. 6d. per share be declared payable forthwith.

Upon the proposition of Mr. Thomas, seconded by Mr. Ross, the committee were re-appointed.

hat a dividend of 3s. 6d. per share be declared payable forthwith.

Upon the proposition of Mr. THOMAS, seconded by Mr. Ross, the committee were re-appointed.

Capt. Rich said that with reference to the report he might remark that they ado only reported upon the value of exploratory work actually going on; the topes were not reported upon. The 93 and 60 fms. levels were opening out as well as could be expected, and above the 60, taking the dip of the lode, they would have it least 100 fms. of backs. The stoppage of East Wheal Grenville had led to some lelay, owing to the increase of water with which they had had to contend, but all hese difficulties had been overcome, and the whole of the pitwork had been beared for.

harged for.

The CHAIRMAN thanked the meeting on behalf of himself and colleagues for the onour they had done them by re-electing them; they would continue to do their est for them, and hoped to be able to meet the shareholders with an equally satistery report upon the next occasion.

Thanks having been voted to the Chairman the proceedings terminated.

WEST WHEAL SETON MINING COMPANY.

A general meeting of shareholders was held at the mine, on Tuesday,
Mr. T. PRYOR, the purser, in the chair.
The usual preliminaries having been disposed of, the statement of accounts was submitted, showing a profit on the four months' working of 6451. 3s. 1d., so that after charging certain expenditure not coming within the category of ordinary working cost, the debit balance was reduced by 3764, and now stands at 42071. 17s. 4d. The subjoined report of the agents was then read:

of accounts was submitted, showing a profit on the four months' working of 6451. 3s. 1d., so that after charging certain expenditure not coming within the category of ordinary working cost, the debit balance was reduced by 3764, and now stands at 42071. 17s. 4d. The subjoined report of the agents was then read:—
Oct. 3.—Michell's shatt is sunk 12 fms. under the 150; the lode is large, and produces a little tin, with stones of copper occasionally. We propose to sink this shaft to the 165, and then to drive westward on the lode at that level. The 150, west of Michell's shaft, is worth for tin and copper 20!, per fathom; more lode is standing to the south of the level; this end is more valuable at present for tin than copper, and is driven a little beyond the point where the 140 began to be productive for copper, but as the copper in the levels above is dipping westward we think there is every reason to hope for an early improvement for copper in the 150. The winze under the 120 is sunk 5 fms.; we are sinking on the north part of the lode for greater convenience, which contains a little tin and copper; the principal part of the lode is standing to the south. We expect to hole this winze to the 150 in about two months from this date, when there will be a good piece-of ground laid open for stoping below the 149 to the west of the winze, which when driving that level was worth 60!, per fathom.

The 140, west of Michell's shaft, produces stones of copper ore occasionally, but is not at present of any value. This level is the furthest west of any level in the mine, and is being triven forward in entirely unexplored ground, so that there is a fair chance of meeting with some discovery at any time. Since the last account we have commenced to drive the 130 west of Michell's shaft. The lode is of a promising character, and produces about ½ ton of copper per fathom. At the 140 east, on the north lode, we have driven north of the old level and intersected the lote, which is about 4 ft. wide, producing copper or that can be w

EAST POOL MINING COMPANY.

A three-monthly meeting of adventurers was held on Monday, at the mine,—Mr. R. R. Broad presiding. The accounts showed a profit on the three months' working of 665. 19s. 5d., and a balance availfor dividend of 699l, 15s. 2d.

able for dividend of 699%. 15s. 2d.

The CHAIRMAN stated that since the last meeting they had sold 170 tons of tin, and if they only had the same price that they were receiving three or four years ago East Pool would now be occupying a very proud position in the ounty. He saw from the papers that there was an upward movement in America, and he hoped that this would lead to a general revival of trade in this country.

In answer to a question from Mr. Rule, Mr. G. Michell said the average price per ton of the tin which they had sold during the last 12 weeks was 38%. 3s., while the average price in the preceding two months was 39%. 10s., so that they had actually old 170 tons of tin at a difference in the price between the two meetings of 1% 7s, per ton. This was equal to a dividend of at least 6d. more than would be declared that day.

per ton. This was equal to a dividend of at least 64, more than would be declared that day.

Mr. RULE: Are we incurring any extra expense in the development of the mine?

Mr. MICHELL: We are sinking our shaft and doing all we can for the development of the mine, but there has been no increase of cost in doing this. The number of men employed is about the same as at the last meeting; we have simply been taking the men from one part and putting them in other and more important places.

Mr. RULE next asked what price the arsenic had been making? — The PURSER replied that the last sale realised 5. 8s. 6d. a ton, and that arose from the fact that it was sold in Liverpool. They would have had a much less price but for the outside competition they had had, which was due to the fact that their largest shareholder was materially interested in that particular article. — Mr. RULE: What is the percentage of our arsenic? — Mr. MICHELL: It is the best in the world; the percentage is 95 or 96. — The agents' report was then read, as follows:—

Oct. 2.—Great Lode: Since our last meeting we have commenced to sink our engine-shaft, which is now about 3½ fms. below the 180, and we hope in about a month from this time to fix a lift at the 180, which will enable us to siuk much faster. The sump winze below the 180 is down 9½ fms., and is worth for tin 160, per fathom. At the 180, cast of engine-shaft, during the past two months we have put up a rise in the back of this level, which we hope to communicate with the 170 in a few days from this time. The 180 is driven west of cross-course 18 fms., and is worth for tin 100. per fathom. We have five stopes working in the back of the 180—four east worth 181. per fathom each stope, and one west worth 100, per fathom for tin. The cross-cut is driven 21 fms. southat this level to interest engine and south lodes. In the 170 we have one stope working in the back of the 180—four east worth 184. per fathom cone stope working in the back of the 180—four east worth for tin 121. per fathom. Engline

end is producing a little tis, but nothing to value. At the 140 we have two stopes working in the back of this level, worth for tin 14. per fathom each stope. South Lode: The 160 is driven each of cross-cut 34 fms., and is worth for tin 30. per fathom. We have one stope in the back of this level, worth for tin 15. per fathom. The 150 is driven east of eastern cross-course about 18 fms., and is worth for tin and copper 36. per fathom. The 150 is driven east of long winze 25 fms., and is worth for tin and copper 15. per fathom. The 150 is driven east of long winze 25 fms., and is worth for tin and copper 15. per fathom. We have a winze sinking in the bottom of this level, which is down 5 fms., worth for tin and copper 16. per fathom each stope. We have a winze sinking below the 150 down about 2½ fms., worth for tin and copper 16. per fathom. The 120 is driven east 25 fathoms, and is worth for tin and copper 8. per fathom.—Charles Bishop, William Tippert.

The report and accounts were pissed, and a dividend of 28, per share declared. Mr. MICHELL said it was really a piry that they should have to sellclose upon 8000, worth of mineral for a patry positiof 50%, and were the mine his own property he should adopt a very different course.

Mr. RULE: It has been rumoured outside that although we tender for one supplies at this mine we do not save anything by it. Being a strong advocate of the system of tendering. I should like to know what truth there is in such a rumour?—The PUESE: I should saythat there is no truth at all in it. If we did not consider that we were profiting by it we should an ocution the system. I have no doubt that we were some immensely by the system of tendering. —Mr. MICHELL: At any rate it saves the purser a great deal of trouble, because the has not to cut down the bills. — Mr. MARTYN: Unfortunately the purser is obliged to do that now.

Mr. RULE asked whether there was any difference in the consumption of coals

Mr. Michell 1. At any fate it saves the purser a great was on the consumption of coals has not to out down the bills. —Mr. Martyn: Unfortunately the purser is obliged to do that now.

Mr. Rule asked whether there was any difference in the consumption of coals now and 12 months ago. —Mr. F. Michell, the engineer of the mine, said he did not think they were using more than half as much at the present time, and there was a probability of a still further reduction. —The Purskradded that this was due to a great extent to the improvements that had been effected in their engines and machinery, as well as to the actual reduction in the consumption.

Mr. Rule then proposed a vote of thanks to the committer. He said he was quite convinced they had thorough business men at the helm of affairs in Eist Pool, and the manner in which they had conducted those affairs during the last 12 or 18 months entitled it to the greatest credit. —Capt. Andrews seconds the resolution, which was carried unanimously.

The CRAIMAN, in acknowledging the compliment, assured the adventurers that the committee were very attentive to the interests of the mine, and none would rejoice more than they if they were in a position to pay large divi tends. But until that day came the shareholders might rely upon it that the strictest economy would be exercised in the management of the mine. He did not he sixtle to say that Mr. Martyn was a purser par excellence, for he went into every detail with a care and minuteness that could not be excelled, and this in itself was a guarantee that the interests of the adventurers were not neglected. —A cordial vote of thanks was also given to the agents of the mine for their excellent management. —Western Daily Mercury.

LINARES LEAD MINING COMPANY.

LINARES LEAD MINING COMPANY.

At the meeting of this company, on Thursday, the following re-

At the meeting of this company, on Taursday, the following report will be presented to the shareholders:—

The accounts now submitted show a profit on the six months' working of 6985/.78, 94. This is less than the profiton the previous six months by 986/. 94. 64., but, comparing it with the corresponding half year of 1875, it shows an increase of 4028/.08, 104., and may, therefore, be regarded as a favourable result. The raisings of ore are equal to those of the previous half-year, and the reserves of discovered ore have at the same time been increased by 400 tons. The total reserves are now estimated at 2400 tons. Satisfactory progress has been made at Pell's shaft since the last general meeting. The lole was cut both in the 90 and 105 fm. levels during the half-year, and found to be productive at both points. The sinking of the shaft towards a 120 fm. level has now been commenced. Operations have lately been resumed at Santo Tomas shaft—the main shaft in the old Poza Ancho Mine. It has been re-timbered and made good to the 75 fathom level, and in the course of a few months the directors hope that it will be completed to the 120 fm. level; the sinking of the shaft to a 135 fm. level will then be undertaken. No substantial improvement has taken place in the Quinter os Mine during the half-year, nevertheless the mine has yielded 130 tons of good lead ore per month, without trenching on the ore ground previously discovered. The smelting results are fully described in the annexed report, and it will be seen that they have been very favourable. The present reduced price of lead which has ruled during the gratest depression, the lowest price at which they sold the company's lead having been 194, 198. The market has since improved. The undivided profit on June 30 last amounted to 79914, 4s, 104. This has enabled the directors to declare a dividend of 9s. per share, which is payable on the 7th prox.—555%—and to plue to the reserved fund 500%.—7250d., and to carry forward a balance of 741l, 4s, 10d.

ALAMILLOS MINING COMPANY.

At the meeting of this company, on Thursday, the following directors report will be presented to the shareholders:—
The time having arrived for holding the half-yearly general meeting, the directors beg to place before you the accounts for the six months to the end of June and it is good in the half-year to De-l'is, 1d. Had the improvements in the mir present year continued, it would not have yen exceeded, that rate of profit, but the po-g the last two months of the half-year, and is et the raisings of one beyond the average of 21

great regularity.

In order to give filler occupation to the desilveri-sing works, and with the vie of increasing the company's profits, the directors have lately bought some leadores in the Linares district, which will shortly be smelted at the Cordova Work They look forward to a favourable result from this transaction, and hope that will prove to be the sourmencement of a profitable business, which may be extended. The d'vidend of is, 6d, per slure, which the directors declared on the content of the content o to a traversement of a profitable business, and an observation of is, 64, per stare, which the directors deed of is, 64, per stare, which the directors deed dividend of 2s, 61, per stare it gives 4s, per stare it the average annual return to the shareholders directors have added 500% to the reserved fund, where making provision for these payments it. stand at 408%, 5. 7d. After making provision for these pay main a balance to carry on to the next account of 265%, 8s. 7d.

FORTUNA MINING COMPANY.

At the meeting of this company, on Thursday, the following directors report will be presented to the shareholders:—

In accordance with our usual practice, we have the pleasure of placing before you a report on the mining and smelting operations for the six months to June 30 last. The profit for that period amounted to \$8.96. 18s. 3l., which, considering that there was a full in the price of lead during the half year from 22. to 194, 10s. per ton, is a favourable result. The lead mixthet his since recovered the fall to the extent of 11. per ton. There was not during the half year any fatling off in the productiveness of the loders. On the contrary, the raisings of ore show some increase, and there has been an addition to the reserves of 300 tons. The reserves,

dividend of 6s. 8f. per share, which is payable on Oct. 7 next—833%, 6s. 8d.; placed to the reserved fund, 500f.; total, 883%, 6s. 8d. Carrying forward a balance of 500f. 9s. 5d.

THE JAVALI COMPANY.

At the meeting of this company on Friday the following directors'

At the meeting of this company on Friday the following directors' report will be presented to the shareholders:—
The director have to report that 7517 tons of ore were crushed during the first six months of 1376, as against 4790 tons in the corresponding period of 1875. Owing, however, to a falling off in the value of the ore the sum remitted (8089/.) is slightly below that received for the six months of 1875. Had the average value of the ore remained as before, the produce would have been 97.77.; and the last annual report, in which a gross return of 20,000/, was anticipated for 1876, provided the ore maintained its value, has thus been justified. During the dry season of this spring Capt. Sohns placed the crushing-mill in a state of thorough repair, and made some progress towards setting up the proposed tailing mill. Unexpected difficulties have, however, arisen, but he hopes it will be completed in another month. In the meanwhile he has done something towards reducing the serious loss we have been incurring through allowing the tailings to escape by adding to his blanket surface, and 210. out of the remittance for July is due to this improvement. Capt. Folms has also during the six months discovered an additional bed of manta, and he has devised a scheme for working the ore trucks up and down an inclined plane, which, according to his estimate, will save 100%, per month in labour.

The board have steadfastly unreaced the policy of supplying to Captain Sohne.

niapour. ouard have steadfastly pursued the policy of supplying to Captain Sohns, t stint and without delay, every item of machinery and stores which he has

asked for, and which in their opinion would help the development of the property, and in consequence of this liberal but, as they believe, reproductive expenditure, they were obliged in the spring of the year to appeal to the shareholders for financial assistance. In reply to their circular they received 1931. from 34 gentlemen, and the remaining 248 shareholders owe much to those who so liberally came to their assistance. The remittance for the July working has been reulised, and amounts to 1311, whilst that for August has been reported by telegraph to amount to 700 ozs. of gold, which probably means about 1830. There is, therefore, every prospect of this year's working eventually showing an improvement over that of 1875. It will be the duty of the shareholders to elect an au liter is the place of the late Mr. Woodhouse. Mr. Charles Frewer offers himself for election.

FOREIGN MINING AND METALLURGY.

The weather has become rather cold at Paris; preparations are being generally made for laying in winter supplies, and a considerable amount of activity has prevailed in the Parisian coal yards, in which there have been rather numerous arrivals, as the Parisian coal merchants have been rather numerous arrivals, as the Parisian coal merchants have been endeavouring to profit from the advantageous rates which have prevailed of late. The advices received from the French coal mining districts—and more particularly from the Nord and the Pas-de-Calais—report a good current of orders and a regular sale for the extraction. The movement of affairs remains, however, somewhat below the hopes conceived respecting it a month since; a proof of this is found in the fact that, notwithstan ling the increased activity which prevails, no advance is spoken of. The chief tonic of discussion for the majorn is the prevents of the Renal a proof of this is found in the fact that, notwithstanling the increased activity which prevails, no advance is spoken of. The chief topic of discussion for the moment is the prospects of the French sagar trade; the reports received with reference to this industry are contradictory. As regards French metallurgical industry, French coalowners do not appear to entertain any hopes of its early revival. Some apprehensions are entertained this year by the French coal trade of severe competition on the part of English coal. This competition is being "organised"—to use a rather favourite French phrase—both at Boulogne and R user, and those who have been organising it appear to be confident of success. At present prices it does not appear at all improbable that English coal will sustain a formidable competition in France with the coal of Belgium and the department of the Nord. department of the Nord.
Confidence appears to have slightly revived in the Belgian coal

continuous appears to have signify revived in the Belgian coal trade, and the market has been better sustained, especially for household qualities. Purchasers tenaciously oppose any upward movement, but, on the other hand, producers are doing their utmost to advance rates. In the Liége basin there are complaints as to the want of appliances for the movement of coal, as well by water as by railway. The railway companies will probably, however, do their utmost to relieve coalowners from the difficulties resulting from the non-execution of their contracts in consequence of went from the non-execution of their contracts, in consequence of want

their utmost to relieve coalowners from the difficulties resulting from the non-execution of their contracts, in consequence of want of rolling-stock.

Advices from Bochum, Westphalia, state that the approach of the winter has this year exerted a very precocious influence upon the Westphalian coal trade. The demand for domestic qualities of coal has suddenly become so active that producers can scarcely meet it. A fortnight since working operations were comparatively restricted, in consequence of the want of orders, while new contracts are only accepted upon the express condition that a rather considerable period shall be allowed for their execution. Colliery proprietors are not slow to profit from these attered circumstances, and they are advancing their rates; for some time they have pronounced the low quotations which have prevailed "detestable." It is very possible, however, that when winter requirements have been supplied the present activity will vanish as fast as it has appeared.

The recent adjudication of meteriel for the Belgian State railways shows that in consequence of the prevailing want of orders the principal Belgian works are carrying on a severe competition with each other. Iron for building purposes is alone sustained; almost all other articles have experienced a decline during the last few weeks. Plates exhibit a depression which can only be explained with difficulty, as Russia and Holland continue to take large quantities of this description of iron from Belgiam. An economic congress has just been held at Bremen for the discussion of questions relating to customs duties, treat is of commerce, and duties on iron. The feeling of the congress was in favour of the renewal of treaties of commerce. A proposal for the maintenance of duties on iron for commerce.

relating to customs duties, treatiss of commerce, and duties on iron. The feeling of the congress was in favour of the renewal of treaties of commerce. A proposal for the maintenance of duties on iron imported into Germany was rejected by 137 to 110. The administration of the Tauringian Railway is about to let contracts for the supply of 90 tons of steel fish-plates, 11 tons of bolts, &c. The administration of the Cologne and Minden Ruilway has also invited tenders for the supply of 1350 Bessemer steel tyres. The Berlin and Stetten Railway Company is also about to let contracts for the supply of 8650 rolled iron rails, 3825 cast-steel rails, 2000 fish-plates, and 24,000 bolts, &c.

24,000 bolts, &c.

The Committee of French Forgemasters has just issued one of 24,000 bolts, &c.

The Committee of French Forgemasters has just issued one of its monthly bulletins. The committee abstains from the expression of any opinion as to the present condition of the French iron trade. The committee, however, gives the present quotation for first-class merchants' iron at 71.16s, per ton; plates for construction purposes have been sold, but not very readily, at 10t. 4s. to 10t. 8s. per ton. The imports of iron into France lave increased during the first eight months of this year to the extent of about 19,000 tons, or 14 per cent. Of the increase of 19,000 tons, 12,000 represent pig imported with payment of duty. The exports of iron from France also increased in the first eight months of this year to the extent of 8000 tons, or 6 per cent. It appears that the contract for rails recently let by the Paris, Lyons, and Mediterranean Railway Company is for 185,000 tons and not for 150,000 tons, as at first reported. Orders for French steel rails have been recently given out at 9t, 16s, per ton. Iron bridges have been contracted for recently in France at 17t, per ton. The Creusot Company and the Fives-Lille Company have obtained between them orders for 1610 tons of iron work required for the great Paris Exhibition of 1878. The work contracted for is to be executed rapidly, and under severe supervision and control. The Commentry and Fourchambault Company will pay on the 16th inst. the balance of its dividend for 1875 76, or 1t. 4s. per share.

Copper has been rather firmer at Paris. Childian in bars has made 77t, per ton; ditto ordinary descriptions, 75t, ditto in ingot, 79t; English tough cake, 78t; and pure Corocoro minerals, 75t, 10s, per ton. In Germany copper has changed hands at about former rates. Advices from R. tterdam report the sale of 29,377 ingots of Bunca tinat 423 fls; at the last dates the market presented a firm tone. The supply of disposeable Billiton has been rather scanty; nothing has been done below 424 fls. There had not been much doing in tin at

tin at 42\frac{2}{3} fls.; at the last dates the morket presented a firm tone. The supply of disposeable Billiton has been rather scarty; nothing has been done below 42\frac{2}{3} fls. There had not been much doing in tin at Paris, and prices have been irregular. Bunca, delivered at Havre or Paris, has made 76\frac{2}{3}; Straits, ditto, 76\frac{2}{3}; and English, delivered at Havre or Rouen, 77\frac{1}{3}, per ton. The Hamburg tin market has ruled feeble. The Paris lead market has exhibited no increase of animation; the current quotation for French and Spanish lead is 21\frac{1}{3}. Such that been slightly declining upon the German markets. Zinc has been quoted uniformly upon the Paris market at 24\frac{1}{3}, per ton, without reference to the quarter from which it is delivered. The German zinc markets have not been at all overdone with business; prices have not varied. with business; prices have not varied.

EXTRAORDINARY BLASTING OPERATION.—The Americans are proverbially proud, not to say boastful, of gigantic enterprises, and they may now take to themselves credit for having carried to a successful issue the most enormous blasting experiment on record—the explosion of Hell Gate, or, as it was originally named by the Dutch, Horll Gatt, meaning whirlpool. The object of this undertaking may be briefly described. The City of New York stands on the island of Madulatin, which divides the East River from the mighty Hudson—there called the North River, and occan going steamers have hitherto approached it by way of Staten Island and the Narrows. Another approach is by way of Long Island Sound and the East River. The Sound is about 100 miles long and 20 miles across at its broadest part, but at its western extremity it narrows so that in places it is not more than half a mile wide. This passage has only been navigable for vessels of light draught, in consequence of a reef running between East River and Long Island Sound, and known by the unpleasant sounding name of Hell Gate. Seven years ago it was determined to pierce this rock and blow it up, so as to deepen the channel, and the manner in which this work has been carried out may be described as a triumph of engineering skill and daring, for during its later stages it was attended with more than an ordinary amount of risk. First of all a shaft was sunk on the river bank, from whence radiated 21 headings, and these again were intersected by galleries running in curves concetric with the main shaft. The total length of the galleries running in curves concetric with the main shaft. The total length of the galleries running in curves concetric with the main shaft. The total length of the galleries running in curves concetric with the main shaft. The total length of the galleries running in curves concetric with the main shaft. The total length of the galleries running in curves concetric with the main shaft. The total length of the galleries running in curves concetric with t EXTRAORDINARY BLASTING OPERATION. - The Americans are pro-

charged simultaneously, and the attaching of the wires was one of the m gerous portions of the work, for had only one of the tubes exploded Hell on have closed forever over some hundreds of corpsea. The enormous game to the control of the control

THE ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY (LIMITED).

DIOS PADRE AND MINA GRANDE,

DIOS PADRE AND MINA GRANDE.

DIOS PADRE MINE.—Capt. Sprague, August 10: We have pleasure in sayingthe place shaft is in good condition to a depth of 240 ft. below surface, while exception of 8 or 9 ft. below our new timbers, which the men are now repairs are is not very good in the shaft. The tunnel end looked promising for two machine is at work we expect to make greater progress in driving the tunnel. MINA GRANDE MINE.—There is no change in the shaft sinking below the 24m devel. The rise above the 12 fm. level and the winze sinking below the 12m daso without alteration.

mechine is at work we expect to make greater progress in driving the smell.

MINA GRANDE MINE.—There is no change in the shaft sinking below the tend.

MINA GRANDE MINE.—There is no change in the shaft sinking below the time, also without afteration.

Dos Padde Mine.—Frank W. Breach, August 10: The air machine is working well, and gives good ventilation in the tunnel end. Next week we shall sgine the west cross-cut and east cross cut No. 1, Mina Grande, for driving. The tunnel of is more promising for ore. During the week we have had stoned very god ore in the end, and have cut the west wall of a vein containing promising looking ore in the end, and have cut the west wall of a vein containing promising looking spar and some ore. The shaft is being repaired below the new times, which consume the surface to force air down to enable the men to continue the work a first ariny season has passed I do not think we shall require to use it.

Capt. Sprague, Aug. 17: We began hoisting rubbish and water from the Bis Padre shaft tast Monday. It appears to be 40 ft. deeper, as we can drop albeit the water to that depth, or 280 ft. below suface. No doubt the rain service include the water to that depth, or 280 ft. below suface. No doubt the rain service in the shaft at this season. In the tunnel end the lode shows stoned lead and green ore sometimes. We are cutting through the lode east at this pist. It also shows spots of ore.

MINA GRADE MINE.—The Balvanera shaft is now to a depth of 26 ft. below the 12; ground good for sinking. In three weeks we expect to got to the depths quired for the 22, and fork to hole the sump below it. The rise above the 12s suspended, as we expect to communicate with the winze sing below the tunnel of the week. The lode in the winze is poor.

Dios PADRE MINE.—Frank W. Breach, Aug. 15: The Dios Padre shaft is now secured to a depth of 37 fms. from surface, and we pestendly continued the west shaft to the west; this we are now cross-read of 18 ft. pide with the winze is not in the tunnel outside thi

57 ft below the 12 Im. level. The while could be seen to be size below.
os Padre Mine — Frank W. Breach, Aug. 24: In the west or he west lode. This is a very distinct condunation of the Miner on ow working on, as judging by the bearing of the latter dit within 2 ft. of where weexpected. At present we are in a six the Lode should be large we can form no opinion yet of its quel end we have cross cut the east lode, and find it 15 ft. wide I green and sometimes black ore mixed through it. It appear to the latter lower times and rather more promising. Between the latter lower wide.

depth stated = 300 ft.

The following telegram was received from Mr. Breach on Sept. 25: "The depth of Mina Grande shaft 24 fms. thelow tunnel); cross-cutting. The Dios Poleshaft eleaned up and time cred 300 ft. below surface. The Dios Poleshaft end, promising."

PROVIDENCIA, TIRITO, AND NEW EAST LODE AND RED SOUTH LODE.

PROVIDENCIA, TIRITO, AND NEW EAST LODE AND RED SOUTH LOOE.

PROVIDENCIA.—Capt. Sprague, Aug. 19: At the Purisima the stope is in law
of poor rock, which will improve shortly.

TIRTO.—In the 42, driving north, the ground is harder than it was lat we,
with no appearance of ore. The stope in the 10 is improving in yield of blacker.

New East Lode and Red South Lode.—The stope on the New East left
is improved a little in the yield of ore. The stope on the Red South lode grolaw
fair quantities of green ore.

Frank W. Breach, Aug. 10: In the New East lo le the south end is changing to
a lode of green ore. We had a voin of black ore in this part which has given piece
to green, and the red ore is also decreasing. During these changes we have, as
trule, had to pass through all or of comparatively poor ground, and it may te
that we are now entering on it. In the north end the lode improves. We are
now keeping the over forom this lode entirely separate from the other blackers
from the Mina Grands with a very good result, as we can select stone or estciently good for ship near by steamer from the New East lode, and to mix the
with the Mina Grands ores would, in some cases, necessitate their being light,

d have not yet the wall of the lode well defined. PROVIDENCIA.—Capt. Sprague, Aug. 24: In the Purisima the stope pro-

the slide, but, as might be expected from its proximity, we are in portagues and have not vet the wall of the lode well defined.

PROYDENCIA.—Capt. Sprague, Aug. 24: In the Purisima the stope probagation of the property of

SOUTH ROSKEAR.—We are glad to learn that a skip road is now being and a Vendawe's shaft, and every preparation made to sink the mine in earnest. This in Vendawe's shaft, and every preparation made to sink the mine in expast-shaft is sunk to the 140, and in about 25 fathoms below that point the min at several converging branches meet, in connection with the great elvane. The best mining authorities anticipate great results from this junction, and the law of the district is at fault, a large course of copper ore is certain to be there. The tin and arsenic sales from this ninch have been steadily increasi-some time past.

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MINING

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BLAKE'S PATENT STEAM PUMP.

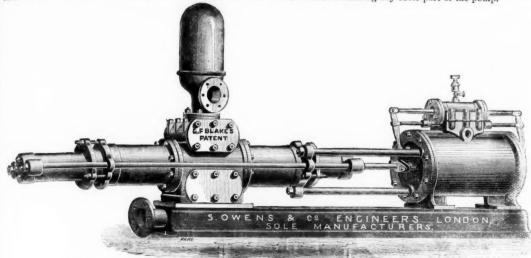
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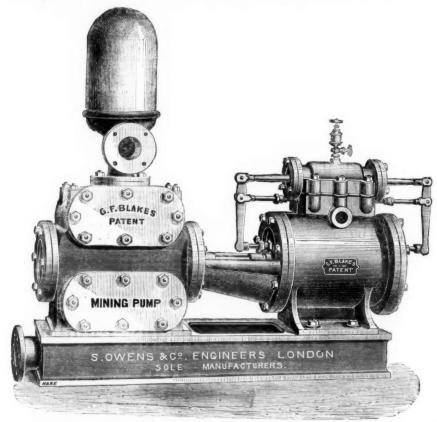
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These PUMPS from their SIMPLICITY, RELIABILITY, DURABILITY, and ECONOMY are SPECIALLY SUITED FOR MINING PURPOSES, where large quantities of water require to be raised from great or medium depths with CERTAINTY. They are double-action in their construction, throwing a constant stream of water, can be made of any stroke to suit the space in which they have to work, can be arranged with any combination of steam and water cylinders to suit the pressure and lift against which it is desired to work them, are made of the very best materials and highest class of workmanhip, and all working parts can be readily got at by any ordinary workman, and replaced if necessary by a duplicate part (all such being interchangeable) in the shortest possible time. For situations where gritty and sandy water has to be pumped the DOUBLE-PLUNGER PATTERN is recommended. Where space is limited the PISTON PUMP is better suited, a novel feature of which is the PATENT REMOVEABLE LINING, which can be removed in a few minutes and substituted with a new one, without disturbing any other part of the pump.



Blake's Improved Double-plunger Steam Pump. S. OWENS AND CO.,

in placing the BLAKE STEAM PUMP before the mining world, believe they are offering the BEST, MOST RELIABLE, and ECONOMICAL PUMP that has yet been made, and solicit an inspection of various sizes in operation at their works, Whitefriars-street, Fleet-street, London.



Blake's Improved Mining Pump, with Patent Removeable Lining to Pump Cylinder,

lay combination of these Pumps may be had to suit circumstances. The following are some of the sizes suitable for Mining

ia of steam cylinders...In. 12 12 12 12 14 14 14 16 16 16 16 18 18 18 18 20 20 20 20 ia. of water cylinders...In. 3 4 5 6 4 5 6 4 5 6 8 4 5 6 8 4 5 6 8 5 7 8 8 agth of strokeIn. 18 18 18 24 24 24 24 24 24 24 24 24 24 24 30 30 30 30 30 30 36 36 across per minute... 30 30 30 30 25 25 25 25 22 22 22 22 22 22 22 22 20 20 17 24 6 8 36 42 17 15

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PATENT CONDENSORS

On be supplied for any size pump to effect a saving of fully 30 per cent. in the consumption of fuel, greatly increasing their efficiency

The Blake Pump will work under water, and as efficiently with compressed air as with steam.

BLAKE'S DONKEY PUMPS FOR FEEDING BOILERS KEPT IN STOCK.

THE "CHAMPION" ROCK BORER, For Tunnels, Mines, Quarries,

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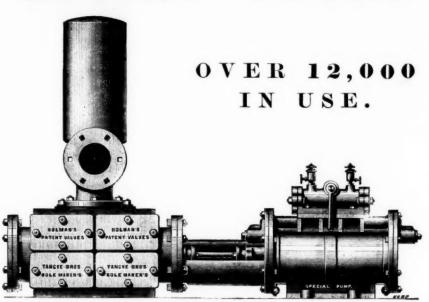
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After eight years of successful application for all purposes to which steam-driven pumps can be applied, THE "SFECIAL" STEAM PUMP STILL MAINTAINS THE FIRST POSITION IN THE MARKET, notwithstanding that it alone-of all direct-acting pumps-has been subjected to the great variety of severe tests that must be encountered in such a period of time. Some valuable improvements have been suggested in the course of a long experience, and their adoption has rendered the apparatus at once the simplest and most certain in action. There is absolutely no extraneous gear, and the steam cylinder is no longer than the pump. The valves are of easy access, and are suited for pumping fluids and semi-fluids of almost any consistency.



WILLIAM ELLIOT, Esq., of the Weardale box and Coal Company, writes under date Sept. 17th. 1875, as follows: -- "We have now THIRTY-FIVE of your SPECIAL STEAM PUMPS in operation at the various collieries under my charge-80me of them employed pumping water out of our pits to the depth of 50 fms.—others employed in the pits, and a good many feeding Boilers. I have no hesitation in saying that we have found them the Cheapest and Best Pumps of the kind we have tried. I can with confidence recommend them to intending purchasers.

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Messrs. Burt, Boulton, and Haywood, Chemical Manufacturers, of London, have also THIRTY-EIGHT of the "SPECIAL" STEAM PUMPS in use at their works, and continue to

REDUCTION PRICES. GREAT

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Diameter of Water Cylinder In. 1½ 2 3 Length of Stroke				
Diameter of Water Cylinder In. 1½ 2 3 Length of Stroke	20 25 22 10 2	£ 16 18 20 25 2210 27 10 32 10 25 30 35 40 30 35 40 45 50 40 45 50	55 65 50 55 60 70 85	55 60
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Price£	55	75	90	100	75	80	85	110	120	140	110	120	130	140	160	180	140	150	160	180	200	180	190	210
Sallons per hour	9750	13,000	16,519	20,000	7330	9750	13,000	16,519	20,000	30,000	9750	13,000	16,519	20,000	30,000	40,000	13,000	16,519	1					Annual Property and in case of
Length of Stroke	12	18	24	24	18	18	18	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
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Diameter of Steam CylinderIn.	10	10	10	10	12	12	12	12	12	12	14	14	14	14	14	14	16	16	16	16	16	18	18	18

Intending purchasers of Steam Pumps would do well to observe the great length of stroke, short steam cylinder, and short piston of the "Special" Steam Pump, as compared with the short stroke, long steam cylinder, and long piston of the "Pumps of other makers, as the efficiency and durability of the machine, and the space occupied by same, greatly depend upon this. The advantage of long strokes will be obvious when purchasers are reminded that each set of suctional elivery valves of a "Special" Steam Pump with 24 in. stroke, running at 120 ft. per minute, would open and close only 30 times per minute, as against 120 times per minute in a Pump with only 6 in. stroke performing same duty.

The Special" Steam Pump can be worked by Compressed Air as well as by Steam.

HUNDREDS of these PUMPS are USED for HIGH LIFTS IN MINES, for which purpose they are made with 21, 24, 26, 28, 30, and 32-inch Steam Cylinders, and 36 48 and 72-inch Strokes.

Holman's Patent Steam Condensers, Exhaust

FOR ALL KINDS OF STEAM PUMPS AND HIGH-PRESSURE STEAM ENGINES.

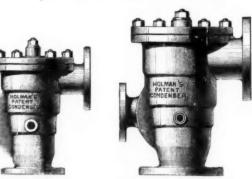
TURNS WASTE STEAM INTO GREAT POWER.

REQUIRES NO THREE-WAY COCKS, CHECK, or REGULATING VALVES.

SAVES HALF ITS COST IN PIPES AND CONNECTIONS.

PREVENTS ALL ESCAPE OF STEAM IN MINES OR ELSEWHERE.

REGUIRES NO EXTRA SPACE.



Saves 20 to 50 per Cent of Fuel.



These Condensers are made to suit any size and kind of Steam Pump. They form a put of the suction pipe of the Pump, and whi they effectually condense the exhaust she they produce an average vacuum of 10 lbs p square inch on the steam piston, incres the duty of the Engine, and effecting a st in fuel of from 20 to 50 per cent.

In Mining operations these Condensets

All Boiler Feeders are recommended to be fitted with these Condensers, as not only in the exhaust steam utilised in heating the fee water, but is returned with it into the boiles

Pistor

The following Testimonial gives one Example of the Power Gained by the action of Holman's Patent Condensers:

MORLERY, WIGAN, October 16th, 1874.

Meetre. TANGYE BROTHERS AND HOLMAN.

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Meetre. Tangyer between the perfect manner in which this important result is accomplished by your and merits the chanks and commendation of the Mining Engineer. When we start the "Bjeefal" Steam Pump the "Condenser vacuum gauge on the exhaust pipe indicating a steady in of the Mining of the Holman's Patent Steam Pump the Condenser which you have supplied to us. The complete condensation of the steam is, apart from its value in the strict economity sense, a most valuable feature in the drainage of underground workstrict economity and the condenser in the strict economity and the condenser in the strict economity and the condenser in the strict economity and maintains a constant vacuum of 10% lbs. per square inch, even when we run the Pump upwards of 80 strokes the strict economity and the condenser in the strict economy the strict end of 10% lbs. per square inch, even when we run the Pump upwards of 80 strokes the strict economy that shown is really so great that the cost of the Condenser musters and the Condenser in the strict economy thus shown is really so great that the cost of the Condenser musters and the Condenser in the strict economy thus shown is really so great that the cost of the Condenser musters and the condenser in the strict economy thus shown is really so great that the cost of the Condenser musters and the Condenser in the strict economy thus shown is really so great that the cost of the Condenser musters and the Condenser in the strict economy that the condenser in the strict economy t

Price from 30s, to 40s, per inch diameter of Steam Cylinder, according to the relative Diameter of Pump for which Condenser is required.

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ORE WASHING & DRESSING MACHINES. IMPROVED

THE SANDYCROFT FOUNDRY & ENGINE WORKS CO. (LIMITED), NEAR CHESTER

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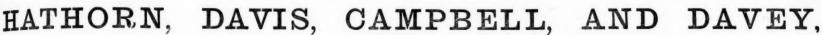
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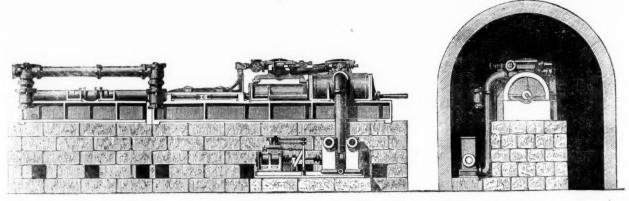
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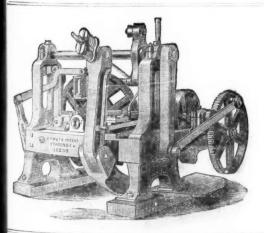


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With Separate Condenser, as applied Underground, forcing 700 gallons per minute 920 feet high.

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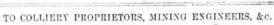
This is the ONLY Machine which presses the Brick equally on Both sides, each plunger entering the mould plate § in., and turning out 12,000 SQUARE, SOLID, PRESSED Bricks per day, READY AT ONCE FOR THE KILN.

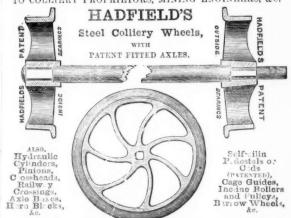
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for WATER SUPPLY to TOWNS, LAND IRRIGATION, and MINERAL EXPLORATIONS, may be executed of any diameter, from 6 in. to 36 in., and to any depth to 2000 ft.,

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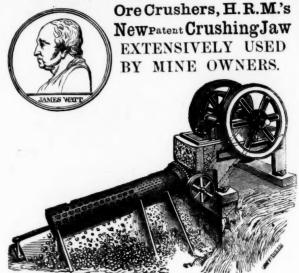
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MAKERS OF LARGE PUMPS AND PUMPING ENGINES. Improved Valves and Taps for Water, Steam, Gas, &c.

PATENT STEAM EARTH-BORING MACHINE ENGINEERS and MACHINE MAKERS to CALICO PRINTERS, BLEACHERS, DYERS, and FINISHERS.

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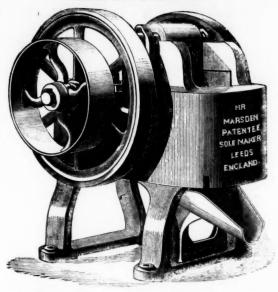
FIXED MACHINE AND SCREEN, Specially designed and largely used for rushing Pyrites, Limestone, Cement, Coal, Rocks, &c.,

AT ALL THE PRINCIPAL WORKS IN THE KINGDOM. fakes in 20 in, by 9 in, and is shown by Testimonials to be breaking from 1000 to 1200 tons per day of 10 hours, at THREE HALF-PENCE PER TON. FEW WORKING PARTS.

SMALL WEAR AND TEAR. FREEDOM FROM BREAKAGE.

Ore Crushers, H. R.M.'s H.R. MARSDEN, LEEDS, Mining Improvements
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ENGINEER.



"The Machine is well designed, simple, but substantially made and is capable of reducing any material to fine gravel, such as copper ore, and is certainly preferable to the stamps in use for that purpose."—Mining Journal.

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MACHINE FOR HAND OR STEAM POWER. MACHINE FOR HAND OR SLEASI FOREK.

For making gravel for gentlemen's walks in parks and garden, the for grinding emery, flints, fossils, &c., for pulverising silver, cope, and other ores; also gold quartz, and especially useful to chemic and metallurgists for sampling, as it is capable of pulverising the hardest material, and can be turned by one man with eas.

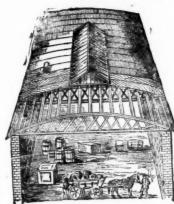
REFERENCES TO ALL PARTS OF THE WORLD,

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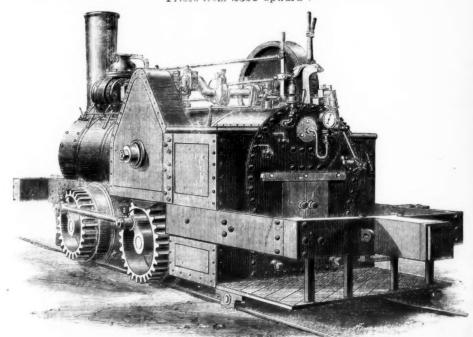
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